

25 August 1989

To Dave Bateman:

Here is all the survey data we have for SQUAW CREEK AREA at Sisters, Oregon. If we can be of any other help please feel to contact us, telephone 503-326-3439.

Robert G. Craig

Robert G. Craig
Chief, Survey Section
CORPS OF ENGINEERS
P.O.BOX 2946
PORTLAND, OREGON 97208-2946
CENPEN-GL

DGMC #2

FILED

DATE 8-5-92
DESCHUTES COUNTY SURVEYOR

BY Sheila Odle

SQUAW CREEK FIELD SURVEY--NARRATIVE

During the period of October through December, 1976, field surveys were made along Squaw Creek from approximately 4 1/2 miles South to 12 miles Northeast of Sisters, Oregon, for map and related cross section control in connection with a Flood Plane Information Report. These surveys consisted of a triangulation net from National Geodetic Survey, (USC & GS), established control; connecting horizontal traverses, trilaterations, Level circuits, (both three wire and single wire), 50 cross sections, related bridge and other restricting structure data along Squaw Creek. Class I, Third Order Survey Standard Procedures were used throughout this project.

The following equipment was used in connection with this survey:

Zeiss TH₂ Theodolite
Zeiss Ni₂ Levels
Tellurometer CA1000 long range EDM
HP 3800A short range EDM

A. Primary Control

Two quadrilaterals were established consisting of existing stations Cline, Big Falls and Stones, new stations Henkle ECC., Squaw Bluff and Three Creek Butte-2. Two additional stations were established outside the quads, Cloverdale and Holmes, by triangulation, (see plat for location). Cline and Big Fall, located on the NGS trans-continental high precision traverse, were used to control horizontal positions. New coordinates were established on Station Stones.

Cline to Big Falls was horizontally measured for indexing the CA1000 and found to be within limits. Check measurements from Cline to Henkle Ecc. and Three Creek Butte-2 were made to check the quads. Horizontal directions were turned from each position throughout the triangulation scheme from eight positions on the instrument using a four second angle rejection from the mean.

Initial computations and adjustment of the quads were made by the survey section of the Corps. After analysis of this adjustment and comparing the check distances, it was felt a weak angle existed at Henkle Ecc. pointing to Big Falls and Cline. After eliminating this direction and substituting a computed angle, the quads were recomputed. This caused the check horizontal distances to close within limits. A new coordinate was established on Henkle from Henkle Ecc. but not closed.

B. Traverse

Three horizontal traverses were connected to the primary control as follows:

1. South Traverse--Beginning at Three Creek Butte-2 in Section 31, Township 16 South, Range 10 East, and running generally North along the existing 1000 line timber access road to Sisters, then Northwest through Section 31, Township 14 South, Range 10 East, then South to the McKenzie Highway, along the highway towards Sisters and closing on Squaw Bluff in Section 32, Township 15 South, Range 10 East.
2. North Traverse--Beginning at Henkle Ecc. in Section 24, Township 14 South, Range 10 East, then Southwest to McKinney Butte, then North along the road to Indian Ford Creek to a point in Section 21, Township 14 South, Range 10 East and closing back on Henkle Ecc.
3. Far North Traverse--Beginning at Stones in Section 35, Township 13 South, Range 11 East, then West to a point in Section 32, Township 13 South, Range 11 East, then Southeasterly and Easterly back to Stones.

C. Trilateration

Three trilateration schemes were established. Two of these were at Squaw Bluff cutting in Highline, Squaw-High, Squaw Bench-1 and Squaw Bench-2 (see plat for location). The third scheme was at Cloverdale located in Section 1, Township 15 South, Range 10 East, to cut in BMZ-45 and Cloverdale-1.

D. Level Control

Three primary three wire level circuits were run as follows:

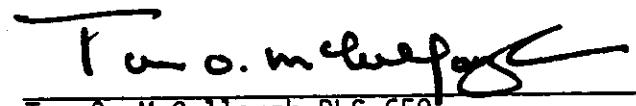
1. South Loop--Beginning at B-369 in Section 16, Township 15 South, Range 10 East and running South along Three Creek Lake Road to Squaw Bench-1 in Section 28, then Eastward to the 1000 line road, then North and West along the road and closing back on B-369.
2. West Loop--Using the existing bench marks along the McKenzie Highway, West of Sisters, and running a series of short loops through portions of the South horizontal traverse West of town.
3. North Loop--Beginning at E-476 at the Sisters' school and running North along the road to Indian Ford Creek; thence Southeast along the Camp Polk Road and closing on Z-45 on the Redmond Highway East of Sisters.

A single wire loop to control the cross sections was run along the entire length of Squaw Creek beginning in Section 29, Township 15 South, Range 10 East, to the County line in Section 3, Township 14 South, Range 11 East, then Southwest along the Fremont Canyon Road and closing on the three wire North Loop at Polk Loop Road.

E. Cross Sections and Bridge Data

Cross section data were taken along Squaw Creek at right angles and approximately 100 feet on either side of the stream edge. Two cross sections, 15 and 16, were unobtainable as permission for access was denied by the property owners. All bridges and other restricting structures along the stream were measured, sketched and photographed.

Respectfully submitted,



Tom O. McCullough PLS 650
Project Surveyor

cps

SISTERS, OREGON--HORIZONTAL AND VERTICAL CONTROL

1. Primary Control

<u>Station</u>	<u>(Y) Northing</u>	<u>(X) Easting</u>	<u>(Z) Elevation</u>
Cline	214,949.03	1,789,895.54	
Big Falls	265,553.40	1,792,110.97	
Stones	268,337.17	1,769,090.30	2968.70
Henkle Ecc.	245,564.14	1,742,322.35	3409.48
Three Creek Butte-2	178,709.51	1,717,693.08	
Squaw Bluff	206,986.62	1,722,099.96	3842.42
Cloverdale	229,450.39	1,743,858.74	3113.227
Holmes	262,165.54	1,769,991.23	2992.78

2. South Traverse & Squaw Bluff Trilateration

Squaw Bench-1	211,367.80	1,724,697.73	3445.769
Squaw Bench-2	207,973.80	1,729,566.13	3578.567
Squaw High	208,439.76	1,715,699.51	3803.37
Highline	205,456.34	1,718,375.14	3907.72
Thousand	203,654.51	1,737,693.69	3401.152
TS 1	204,404.98	1,737,657.39	3395.831
TS 2	205,744.24	1,736,610.51	3384.186
TS 3	206,565.97	1,736,627.54	3386.407
TS 4	207,537.98	1,737,644.19	3361.971
TS 5	208,210.09	1,737,728.31	3355.858
TS 6	210,081.97	1,736,648.36	3342.309
TS 7	210,940.52	1,736,765.70	3329.977
TS 8	211,970.51	1,736,397.86	3318.404
TS 9	212,769.55	1,735,728.94	3305.233
TS 10	213,113.03	1,735,006.16	3298.412
TS 11	213,473.10	1,733,932.61	3294.251
TS 12	216,025.57	1,733,690.32	3272.872
TS 13	217,085.96	1,732,819.87	3271.798
TS 14	218,720.20	1,730,331.78	3283.142
TS 15	221,390.49	1,726,478.00	3265.310
TS 16	224,284.43	1,722,116.99	
Sisters	229,711.42	1,723,751.79	3187.769
SSB 1	233,094.61	1,721,696.02	3190.767
SSB 2	236,196.01	1,717,556.86	
SSB 3	238,604.74	1,714,090.04	3258.052
SSB 4	232,418.81	1,713,663.74	3275.053
SSB 5	230,606.96	1,718,065.23	3225.571
SSB 6	229,627.02	1,719,355.60	3210.986
BM B-298			3263.465
BM E-364			3192.015
BM C-1			3226.562
BM B-369			3284.459
Three Creek BM Canal			3540.513
			3366.56

SISTERS, OREGON--HORIZONTAL AND VERTICAL CONTROL
Page 2

3. North Traverse & Cloverdale Trilateration

<u>Station</u>	(Y) <u>Northing</u>	(X) <u>Easting</u>	(Z) <u>Elevation</u>
BM E-476			3179.44
AH-1	232,125.67	1,732,365.09	
Airport	233,355.97	1,727,060.59	3164.955
HEA 7	234,886.42	1,727,083.68	3153.438
HEA 6	236,826.09	1,727,881.03	3148.655
HEA 5	238,376.73	1,727,719.82	3149.626
HEA 4	240,175.45	1,728,978.88	3164.386
HEA 3	244,412.73	1,729,962.29	3227.182
HEA 2	246,589.49	1,729,322.09	3224.535
HEA 1	248,555.40	1,729,196.32	3260.617
Ford			3175.718
Polk			3012.612
Cloverdale-1	230,470.20	1,741,975.90	3121.973
BM Z-45	229,444.94	1,742,192.06	3120.109
Henkle	245,466.47	1,742,307.63	3407.75
BM A-379			3175.063

4. Far North Traverse

Stones	268,337.17	1,769,090.30	2968.70
SRR 1	268,788.88	1,768,465.19	2962.36
SRR 2	269,182.52	1,767,777.91	2937.08
SRR 3	268,085.60	1,755,639.35	2950.19
Rimrock	264,961.28	1,762,001.10	2858.10
RRS-1	264,826.52	1,764,582.19	3003.03
RRS-2	264,803.33	1,767,421.37	3029.32

5. Fremont Canyong Bench Marks

Fremont BM	2882.40
Stephens BM	3150.92
Henkle BM	3046.60

6. Cross Section TBM's

<u>Cross Section #</u>	<u>Elevation</u>
X-1	2589.45
X-2	2632.34
X-3	2669.29
X-4	2718.10
X-5	2762.88
X-6	2810.86
X-7	2852.54

SISTERS, OREGON--HORIZONTAL AND VERTICAL CONTROL
Page 3

6. Cross Section TBM's (Continued)

<u>Cross Section #</u>	<u>Elevation</u>
X-8	2905.92
X-9	2952.45
X-11	2996.49
X-14	3048.01
X-17	3088.62
X-20	3115.73
X-24	3154.82
X-33	3222.66
X-36	3255.68
X-39	3317.28
X-44	3373.57
X-46	3367.75
X-49	3435.308
X-52	3545.433

LOCALITY DESCHUTES	TYPE OF MARK	STATION CLINE	ELEVATION (FT) (M)
LOCALITY	STAMPING ON MARK	AGENCY (CAST IN MARKS) USC EGS	DATUM
LATITUDE	LONGITUDE	DATUM	DATUM
(NORTHING)(EASTING) (FT) 214,949.03	(EASTING)(NORTHING) (FT) 1,789,895.54	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY)
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE ORDER
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)

STATION MARK IS 50 FT. NORTH OF FAR
NORTH WOOD RAIL FENCE @ OMNI. STATION
TO REDMOND AIRPORT. PUBLISHED DESCRIPTION
IS OKAY OTHERWISE.

SKETCH

DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1859
AND 1900, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP	STATION THREE CREEK BUTTE-2 (H 31 16S 10E)		
LOCALITY SISTERS OR.	STAMPING ON MARK SAME	AGENCY (CAST IN MARKS) USACE	ELEVATION — (FT) (M)	DATUM —
LATITUDE	LONGITUDE	DATUM	DATUM	
(NORTHING)(EASTING) 178,709.51 (FT)	(EASTING)(NORTHING) 1,717,693.08 (FT)	(FT) HA	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0001
(NORTHING)(EASTING) (M)	(EASTING)(NORTHING)	(FT) (M)	GRID AND ZONE	DATE NOV 1976 ORDER 320
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS) (FEET)

STATION IS A BRASS CAP CEMENTED IN A ROCK ON THE FAR NORTH END OF THREE CREEK BUTTE LOCATED IN THE NE^{1/4} NW^{1/4} SEC 31 T 16S R 10 E W.M. DRIVE SOUTH FROM SISTERS TO HIGHLINE ROAD, FOLLOW HIGHLINE ROAD TO BASE OF BUTTE THEN THE ACCESS ROAD TO THE TOP OF THREE CREEK BUTTE & STATION. AN OLD LOOK OUT HOUSE STANDS ON THE SOUTH END OF THE BUTTE

SKETCH



DA FORM 1 OCT 1959

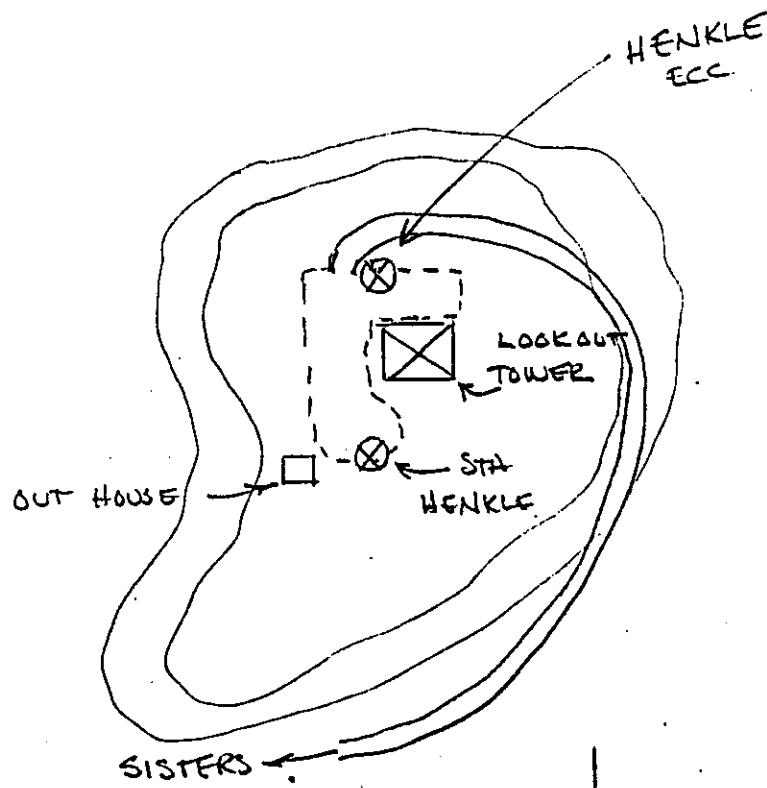
REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent
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DE SCHUTES		TYPE OF MARK BRASS CAP	STATION HENKLE ECC (H&V 24 145 10 E)	
LOCALITY SISTERS OR.	STAMPING ON MARK SAME	AGENCY (CAST IN MARKS) USACE		ELEVATION VA (FT) NC
LATITUDE	LONGITUDE	DATUM		DATUM
(NORTHING)(EASTING) 245,564.14	(FT) TAT	(EASTING)(NORTHING) 1,742,322.35	(FT) 44	GRID AND ZONE OCS NORTH
(NORTHING)(EASTING)	(FT)	(EASTING)(NORTHING)	(FT)	GRID AND ZONE
	(MI)		(MI)	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO: A BRASS CAP CEMENTED IN A ROCK ON THE NORTH SIDE OF THE PARKING LOT ABOUT 50 FT. NORTH OF THE NORTHWEST CORNER OF HENKLE RUSTIC LOOK OUT TOWER IN THE SE $\frac{1}{4}$ SW $\frac{1}{4}$ SEC 24 T14S R10E 4 $\frac{1}{2}$ AIR MILES NORTH EAST OF SISTERS OREGON.



SKETCH

DA FORM 1 OCT 1959

REPLACES DA FORMS 1959
AND 1250, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

NAME <i>DESCHUTES</i>	TYPE OF MARK <i>BRASS CAP</i>	STATION <i>STONES</i>	
LOCALITY	STAMPING ON MARK	AGENCY (CAST IN MARKS) <i>USCGS</i>	ELEVATION <i>VA</i> (FT) <i>2968.70</i> <i>44</i>
LATITUDE	LONGITUDE	DATUM	DATUM <i>1929 W / 1947 ADJ</i>
(NORTHING)(EASTING) (FT) <i>268,337.17</i> <i>44</i>	(EASTING)(NORTHING) (FT) <i>1,769,090.30</i> <i>44</i>	GRID AND ZONE <i>OCS NORTH</i>	ESTABLISHED BY (AGENCY) <i>DACW 57-77-C-006</i>
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE <i>NOV 76</i> ORDER <i>3RD</i>
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)

USE PUBLISHED DESCRIPTION - NEW COORDINATES
BY THIS SURVEY



SKETCH

DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TNI 5-237; the proponent agency is U.S. Continental Army Command.

LOCALITY DESCHUTES	TYPE OF MARK STAMPING ON MARK	STATION BIG FALLS	ELEVATION — (FT) (M)	
LATITUDE	LONGITUDE	DATUM	DATUM	
(NORTHING)(EASTING) 265,553.40 (FT) (M)	(EASTING)(NORTHING) 1,792,110.97 (FT) (M)	(FT) GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY)	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE ORDER	
TO OBTAIN		GRID AZIMUTH, ADD GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH TO THE GEODETIC AZIMUTH	
TO OBTAIN				
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

USE PUBLISHED DESCRIPTION —

SKETCH

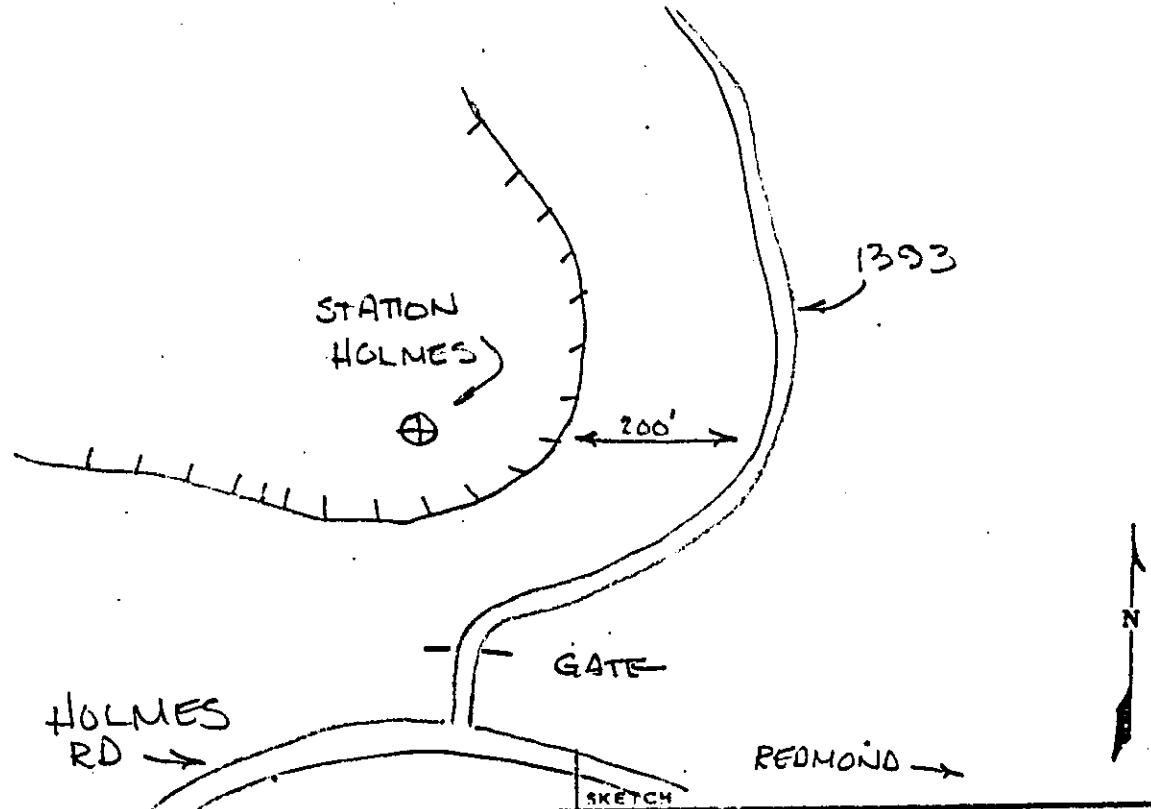
DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

DESCRI ^{PT} DESCHUTES	TYPE OF MARK BRASS CAP	STATION HOLMES (2 14S 11E)	
LOCALITY SISTERS OR.	STAMPING ON MARK SAME	AGENCY (CAST IN MARKS) USACE	ELEVATION 2992.78 VA (FT)
LATITUDE	LONGITUDE	DATUM	CATUM 1929 W / 1947 ADJ.
(NORTHING)(EASTING) 262, 165.54	(FT) (M) 1,769, 991.23	(FT) (M) OCE NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006
(NORTHING)(EASTING)	(FT) (M)	(FT) (M) GRID AND ZONE	DATE NOV 1976
			ORDER 3RD
TO OBTAIN		GRID AZIMUTH, ADD	
TO OBTAIN		GRID AZ. (ADD)(SUB.)	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)

DRIVE TO: A BRASS CAP CEMENTED IN A
ROCK ON THE EDGE OF A PLUFF 200' EAST
OF USFS ROAD 1393, 2000 FT NORTH OF
ITS JUNCTION WITH HOLMES ROAD. STATION
IS LOCATED IN THE SE_{1/4} SEC 2, T 14S R 11E.



DA FORM 1959 1 OCT 64

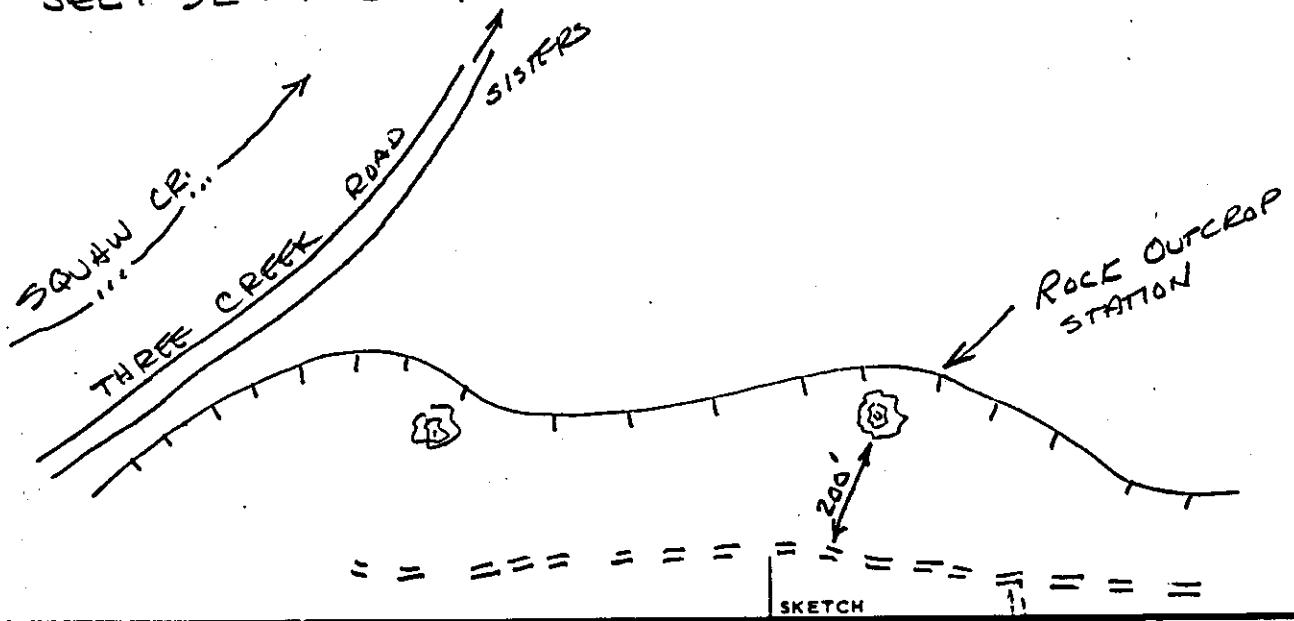
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DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
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COUNTRY	TYPE OF MARK	STATION	HUV 32 155 10F	
DESCHUTES CO.	BRASS CAP	SQUAW-BLUFF	AGENCY (CAST IN MARKS)	VA (FT)
LOCALITY SISTERS OR.	STAMPING ON MARK SAME AS STA.	U.S.A.C.E	ELEVATION	3842.42
LATITUDE	LONGITUDE	DATUM	DATUM	1929 w/1947 ADJUSTMENT
(NORTHING)(EASTING) 206,986.62 (M)	(EASTING)(NORTHING) 1,722,099.96 (M)	(FT) GRID AND ZONE O.C.S. NORTH	ESTABLISHED BY (AGENCY)	DACW 57-77-C-0006
(NORTHING)(EASTING) (M)	(EASTING)(NORTHING) (M)	(FT) GRID AND ZONE	DATE	NOV. 1976 ORDER 3 RD
TO OBTAIN	GRID AZIMUTH, ADD	"	"	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	"	"	TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS) (FEET)
	" "	" "		

DRIVE TO DESCRIPTION:

FROM THE JUNCTION OF HIGHWAY 20 AND THREE CREEK LAKE ROAD (FLK LAKE ROAD) IN SISTERS OR., GO SOUTH ON THREE CREEK ROAD 5.1 MILES TO TOP OF HILL. TURN WEST ON DIRT ROAD 3/4 MILES THEN NORTH 3/4 MILES TO EDGE OF A HIGH BLUFF OVER LOOKING SQUAW CREEK IN A LARGE OLD BURN. STATION IS A BRASS CAP ON A 30 FOOT HIGH ROCK OUTCROP ON EDGE OF THE BLUFF LOCATED IN THE SE 1/4 NE 1/4 SEC. 32 T 155 R 16 E.

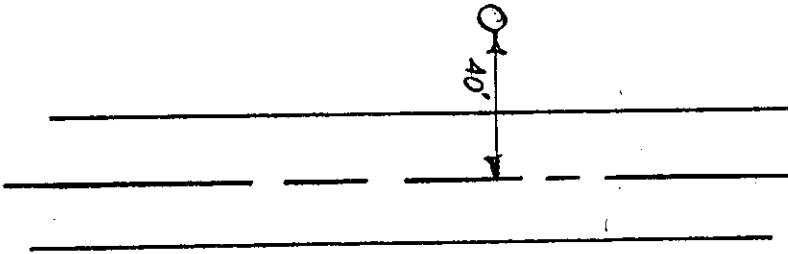


COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP	STATION CLOVERDALE	
LOCALITY SISTERS, ORE.	STAMPING ON MARK CLOVERDALE Hwy 155 10E	AGENCY (CAST IN MARKS) U. S. A.C.E.	ELEVATION (FT) 3113.227 (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/ 1947 ADJ.
(NORTHING)(EASTING) (FT) 229.450.39	(EASTING)(NORTHING) (FT) 1,743,858.74	GRID AND ZONE O.G.S. NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 3 RD

TO OBTAIN	GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN	GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: SOUTH ON Hwy. #20 FROM SISTERS U.S. POST OFFICE 0.5 MILES, THEN EAST ON Hwy. #126 3.1 MILES TO STATION. STATION IS 40' LEFT OF E OF Hwy. ON SHOULDER OF ROAD, MARKED BY A METAL POST & STANDARD SIGN.

No P.R. FOR STATION



SKETCH

DA FORM 1 OCT 64 1959

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

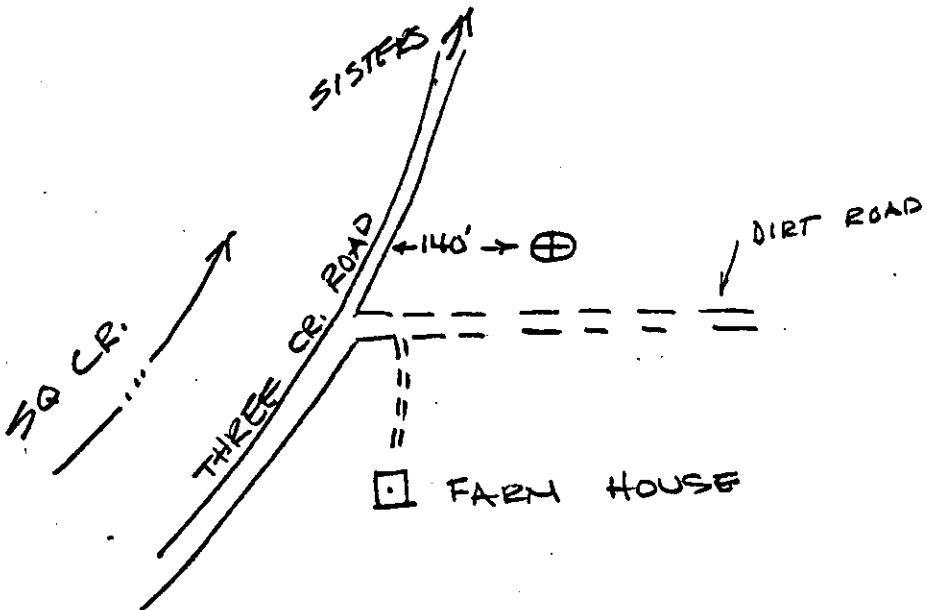
DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent
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COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP	STATION SQUAW BENCH-1 (H&V 28 15S 10E)		
LOCALITY SISTERS, OREGON	STAMPING ON MARK SAME	AGENCY (CAST IN MARKS) U.S.A.C.E.	ELEVATION 3445.769 (FT) (M)	DATUM 1929 w/1947 ADJUSTMENT
LATITUDE	LONGITUDE	DATUM		
(NORTHING)(EASTING) (FT) 211,367.80 (MI)	(EASTING)(NORTHING) (FT) 1,724,697.73 (M)	GRID AND ZONE O.C.S. NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-2006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE NOV. 1976	ORDER 3rd
TO OBTAIN GRID AZIMUTH, ADD °		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.) °		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)
	° ' "	° ' "		

DRIVE TO:

3.6 MILES SOUTH ALONG THREE CREEK ROAD (ELK LAKE ROAD) FROM THE JUNCTION OF HIGHWAY 20 IN SISTERS OREGON THEN 140 FT EAST TO TO STATION IN OLD BURN ABOUT 500 FT NORTH OF A WHITE FARM HOUSE IN THE SW 1/4 NW 1/4 SEC 28 + 15S R 10 E.



SKETCH

DA FORM 1959 OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 67, WHICH ARE OBSOLETE.

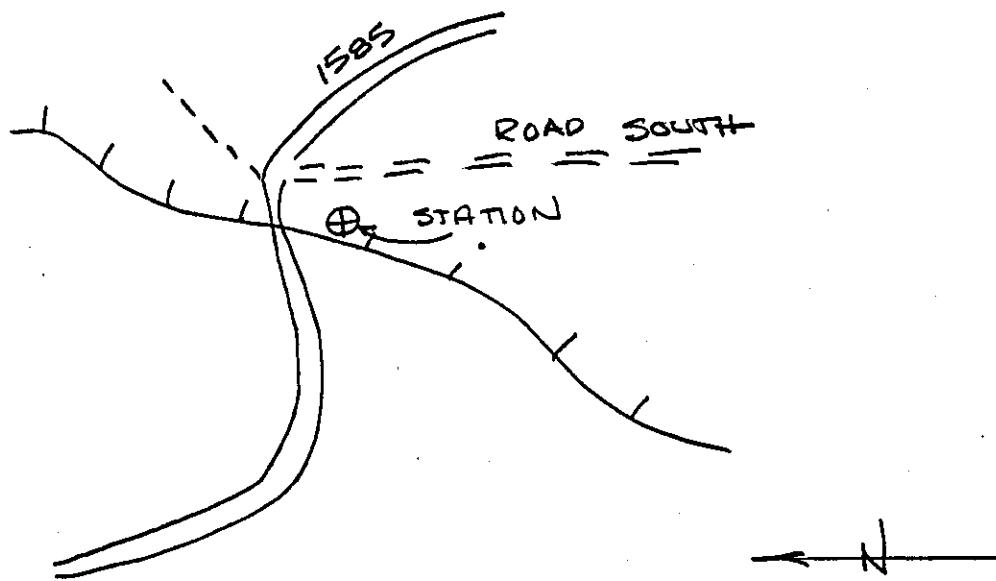
DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP		STATION SQUAW-BENCH-2 (H&J 33 T 15S 10E)	
LOCALITY SISTERS, ORE	STAMPING ON MARK SAME		AGENCY (CAST IN MARKS) U.S. A.C.E.	
LATITUDE	LONGITUDE		ELEVATION (FT) 3578.567	
(NORTHING)(EASTING) 207,973.80	(FT) (M) 1,729,566.13	(EASTING)(NORTHING) 1,729,566.13	DATUM 1929 4/1947 ADJUSTMENT	
(NORTHING)(EASTING) 	(FT) (M) 	(EASTING)(NORTHING) 	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
TO OBTAIN GRID AZIMUTH, ADD TO OBTAIN GRID AZ. (ADD)(SUB.)			DATE Nov. 1976	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC) ° ° °	BACK AZIMUTH ° ° °	GEOD. DISTANCE (METERS) 	GRID DISTANCE (METERS)

DRIVE TO :

3.1 MILES SOUTH ALONG THREE CREEK ROAD
(ELK LAKE RD) FROM THE JUNCTION OF HIGHWAY
20 IN SISTERS OREGON TO USFS ROAD 1585;
LEFT ON 1585 1.3 MILES TO TOP OF HILL; AND
JUNCTION OF ROAD LEADING SOUTH, STATION
IS ABOUT 90 FT SOUTH OF 1585 & ABOUT
THE SAME WEST OF ROAD LEADING SOUTH.



SKETCH

COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP	STATION SQUAW-HIGH		
LOCALITY SISTERS, ORE.	STAMPING ON MARK 31 1SS 10E	AGENCY (CAST IN MARKS) U.S. A.C.E.	ELEVATION V.A (FT) 3803.37	DEP
LATITUDE	LONGITUDE	DATUM	DATUM 1929 N/1947 ADJUSTMENT	
(NORTHING)(EASTING) 208, 439.76	(FT) (EASTING)(NORTHING) 1715, 699.51	(FT) (M)	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 3 RO
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)

DRIVE TO :

LARGE

A SUR CAP CEMENTED IN A FLAT ROCK
 150 FT EAST OF A NEW USFS TIMBER ACCESS
 ROAD IN THE NE^{1/4} NW^{1/4} SEC. 31 T 1SS, R 10E.
 THE STATION IS ABOUT 3.5 MILES SOUTH
 OF THE 1000 LINE ON A ROAD LEADING SOUTH
 FROM SAME 1/2 MILE WEST OF STATION
 TS-16.

SKETCH



DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

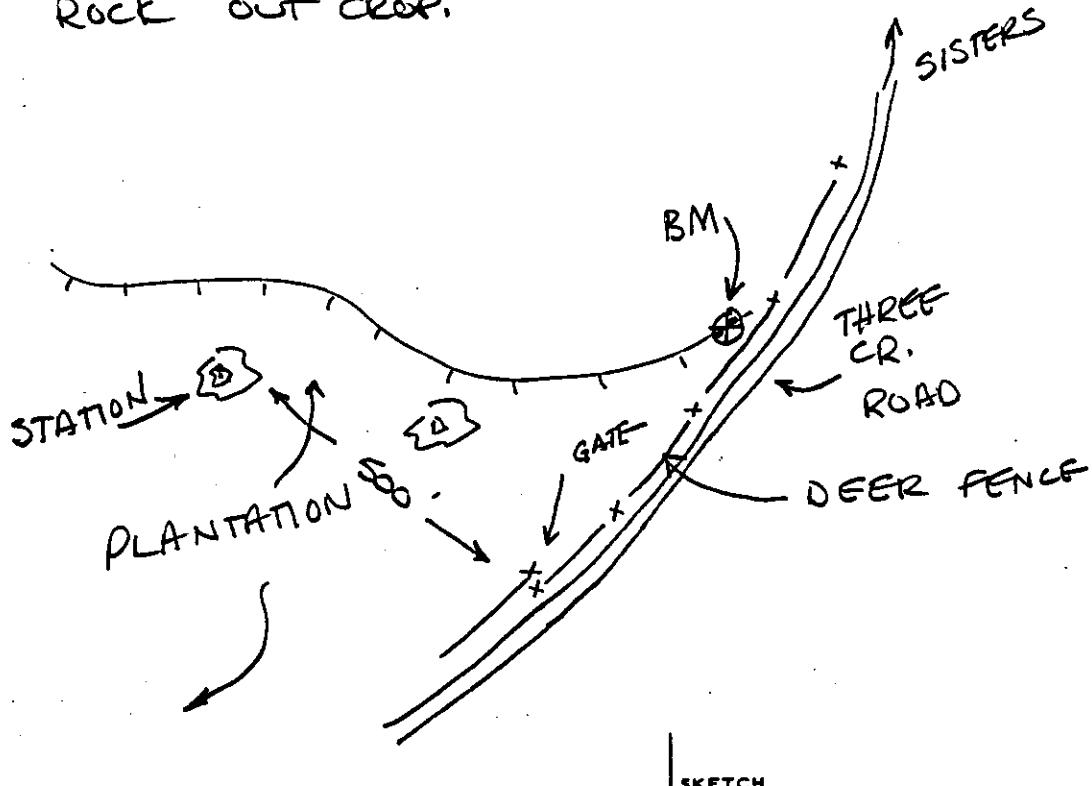
DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP	STATION HIGHLINE (31 15S 10E)		
LOCALITY SISTERS, ORE.	STAMPING ON MARK SAME	AGENCY (CAST IN MARKS) U.S. A.C.E.	ELEVATION VA 3907.72 (FT)	(M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 1947 ADJUSTMENT	
(NORTHING)(EASTING) (FT) 205, 456, 34	(EASTING)(NORTHING) (FT) 1,718, 375.14	(M)	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) JACW-57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(M)	GRID AND ZONE	DATE Nov. 1976
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)
			(FEET)	(FEET)

DRIVE TO:

5.1 MILES SOUTH ALONG THREE CREEK ROAD (ELK LAKE) FROM THE JUNCTION @ HIGHWAY 20 IN SISTERS ^{ON FOOT SECTION} @ THE TOP OF A HILL - PROCEED WEST THROUGH GATE IN HIGH DEER FENCE 500 FT UP HILL TO ROCK OUTCROP. STATION IS A BRASS CAP CEMENTED IN ROCK ON TOP OF ROCK OUTCROP.



SKETCH

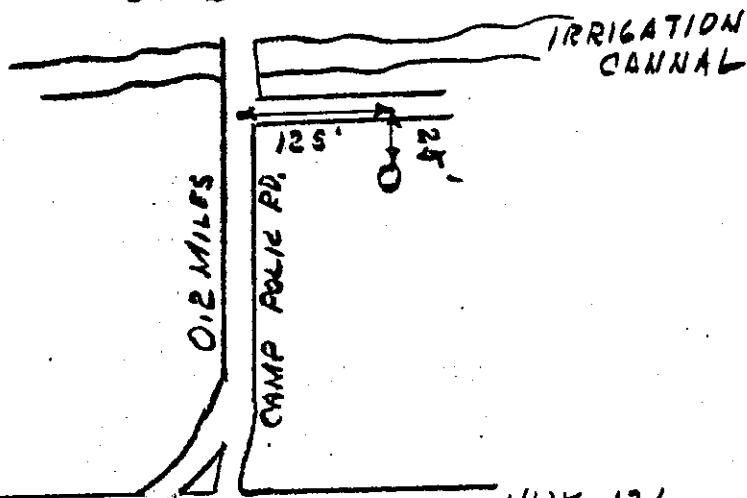
DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES	TYPE OF MARK SUR - CAP	STATION CLOVERDALE	1 (HEV) 1-155 10E	
LOCALITY SISTERS, ORE	STAMPING ON MARK CLOVERDALE 1	AGENCY (CAST IN MARKS) USACE	ELEVATION 3121.973	(FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 W/1947 ADJUST.	
(NORTHING)(EASTING) 230, 470.20	(EASTING)(NORTHING) 1741, 975.90	(FT) (M)	GRID AND ZONE CCS NORTH	ESTABLISHED BY (AGENCY) DALW-57-77-C-0001
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 320
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: SOUTH ON Hwy #20 FROM SISTERS U.S. Post Office 0.5 MILES, THEN SE [REDACTED] ON Hwy. #126 2.8 MILES, THEN SE NORTH ON CAMP POLK RD. 0.2 MILES TO A ACCESS ROAD RIGHT RUNNING ALONG A IRRIGATION CANAL. STATION IS 125' ± FROM CAMP POLK RD. ALONG ACCESS ROAD AND 25' ± RIGHT OF ACCESS ROAD, STATION IS MARKED BY A METAL POST AND STANDARD SIGN.



→ SISTERS

Hwy. 126

SKETCH

DA FORM 1959
1 OCT 1959

REPLACES DA FORMS 1958
AND 1950, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
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agency is U.S. Continental Army Command.

14

AS DESCRIBED ON USC&GS LEVEL LINE 11
EUGENE TO REDMOND - PART OF
TRILATERATION W. CLOVERDALE & CLOVERDALE-1

SKETCH

DA FORM 1 OCT 54 1959

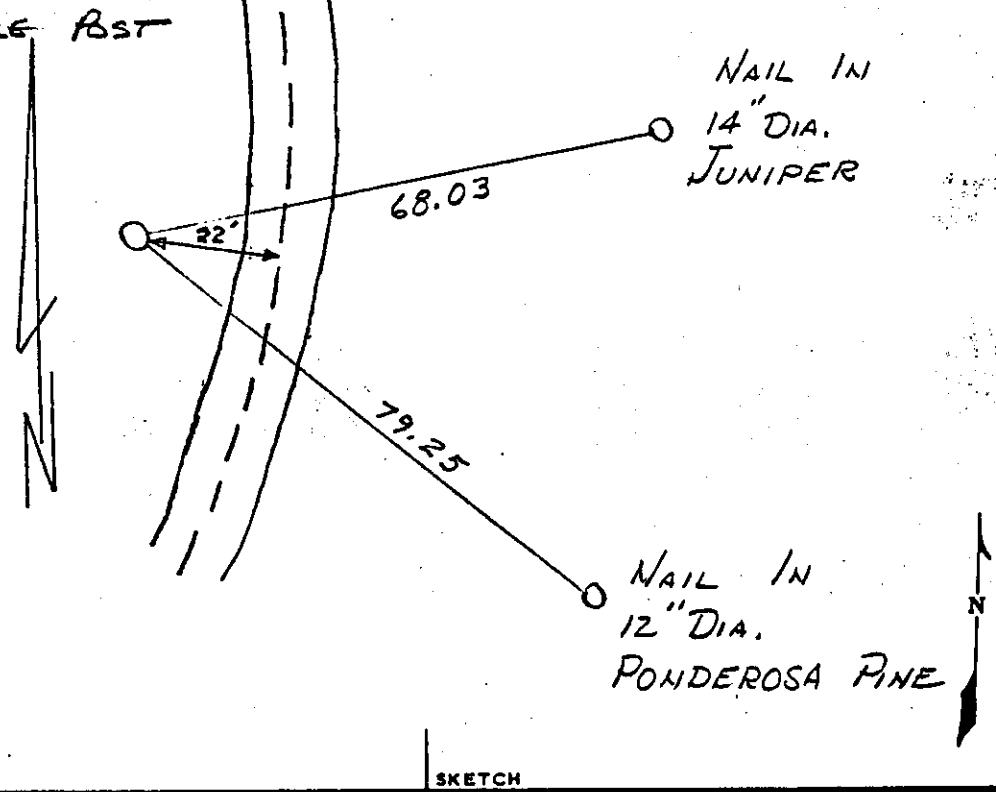
**REPLACES DA FORMS 1939
AND 1940. 1 FEB 37, WHICH
ARE OBSOLETE.**

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES Co.		TYPE OF MARK B.C.	STATION THOUSAND H.V. 35 15S, 10E	
LOCALITY SISTERS, ORE.	STAMPING ON MARK SAME AS ABOVE		AGENCY (CAST IN MARKS) U.S.C.E.	
LATITUDE	LONGITUDE		DATUM 1929 w/1947 DESCHUTES	
(NORTHING)(EASTING) 203, 654.51	(FT) (M)	(EASTING)(NORTHING) 1737, 693.69	(FT) (M)	GRID AND ZONE OCS NORTH
(NORTHING)(EASTING)	(FT)	(EASTING)(NORTHING)	(FT)	GRID AND ZONE
	(M)		(M)	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF Hwy. #20 AND THREE CREEK LAKE RD. (ELM ST. OR ELK CR. RD.) SOUTH ON THREE CR. RD. 1.4 MILES THENCE S.E. ON TIMBER ACCESS RD. #1000 5.2 MILES TO STATION A BRASS CAP IN CONCRETE MON. 22 ± FT. WEST OF E ON RD. SHOULDER. STATION IS IN SMALL OPENING.
 A ^{STEEL} GREEN FENCE POST
 W SIGN FOR
 WITNESS



SKETCH

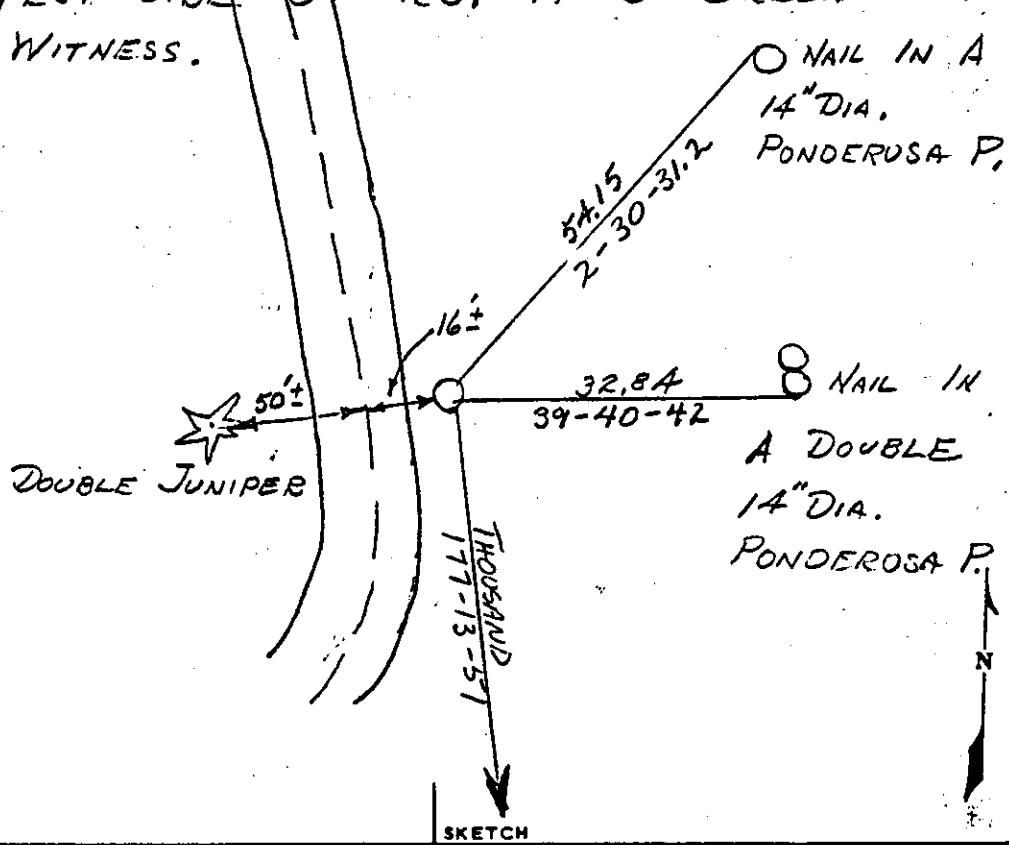
DA FORM 1959 OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 67, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
 For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES Co.		TYPE OF MARK I.R.; SUR. CAP	STATION TS-1 H.V. 35 15S, 10E	
LOCALITY SISTERS, ORE.		STAMPING ON MARK TS-1	AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE	DATUM	
(NORTHING)(EASTING) 204,404.98	(FT) (M)	(EASTING)(NORTHING) 1737,657.39	(FT) (M)	
(NORTHING)(EASTING)	(FT)	(EASTING)(NORTHING)	(FT)	
	(M)		(M)	
		GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DALW 57-77-C-0006	
		GRID AND ZONE	DATE Nov. 1976	
			ORDER 380	
TO OBTAIN		GRID AZIMUTH, ADD		
TO OBTAIN		GRID AZ. (ADD)(SUB.)		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY. 20 AND THREE CREEK LAKE RD. (ELM ST. OR ELM CR RD.) SOUTH ON THREE CR. RD. 1.4 MILES THENCE S. E. ON TIMBER ACCESS RD. ± 1000 5.05 MILES TO STATION. A SUR-CAP IN CONCRETE MON. 12± FT. EAST OF Q ON SHOULDER. LARGE DOUBLE JUNIPER ON WEST SIDE OF RD. A 6' GREEN^{STEEL} POST AND SIGN FOR WITNESS.



COUNTRY DESCHUTES Co.		TYPE OF MARK <i>I.R., SUR. CAP.</i>	STATION TS-2 HV 35 155, 10E		
LOCALITY SISTERS, ORE.	STAMPING ON MARK TS-2		AGENCY (CAST IN MARKS) / /		
LATITUDE	LONGITUDE		DATUM 1929 w/ 1947 ADJUSTMENT ESTABLISHED BY (AGENCY)		
(NORTHING)(EASTING) (FT) 205,744.24	(FT) (M)	(EASTING)(NORTHING) (FT) 1,736,610.51	(M)	GRID AND ZONE OCS NORTH	ELEVATION (FT) 3384.186 (M)
(NORTHING)(EASTING) (FT) (M)	(FT) (M)	(EASTING)(NORTHING)	(FT) (M)	GRID AND ZONE	DATE ORDER Nov. 1976 3 80
TO OBTAIN GRID AZIMUTH, ADD " " TO THE GEODETIC AZIMUTH					
TO OBTAIN GRID AZ. (ADD)(SUB.) " " TO THE GEODETIC AZIMUTH					
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC) ° ° °	BACK AZIMUTH ° ° °	GEOD. DISTANCE (METERS)	GRID DISTANCE (FEET)	
<p><u>DRIVE TO DESCRIPTION:</u> FROM INTERSECTION OF HWY. 20 AND THREE CREEK LAKE RD. (ELM ST. OR ELK CR. RD.) SOUTH ON THREE CR. RD. 1.4 MILES THENCE S.E. ON TIMBER ACCESS RD. #1000 4.61 MILES TO STATION. A SUR-CAP IN CONCRETE MON. 18± ft. WEST OF E, ON SHOULDER. A 6' GREEN STEEL POST AND SIGN NAIL IN A 10" Dia // FOR WITNESS. PONDEROSA P.</p>					
<p>NAIL IN 12" Dia O 11.30 263-03-31</p> <p>TS-2 141-59-09</p> <p>PONDEROSA P.</p>					
SKETCH					

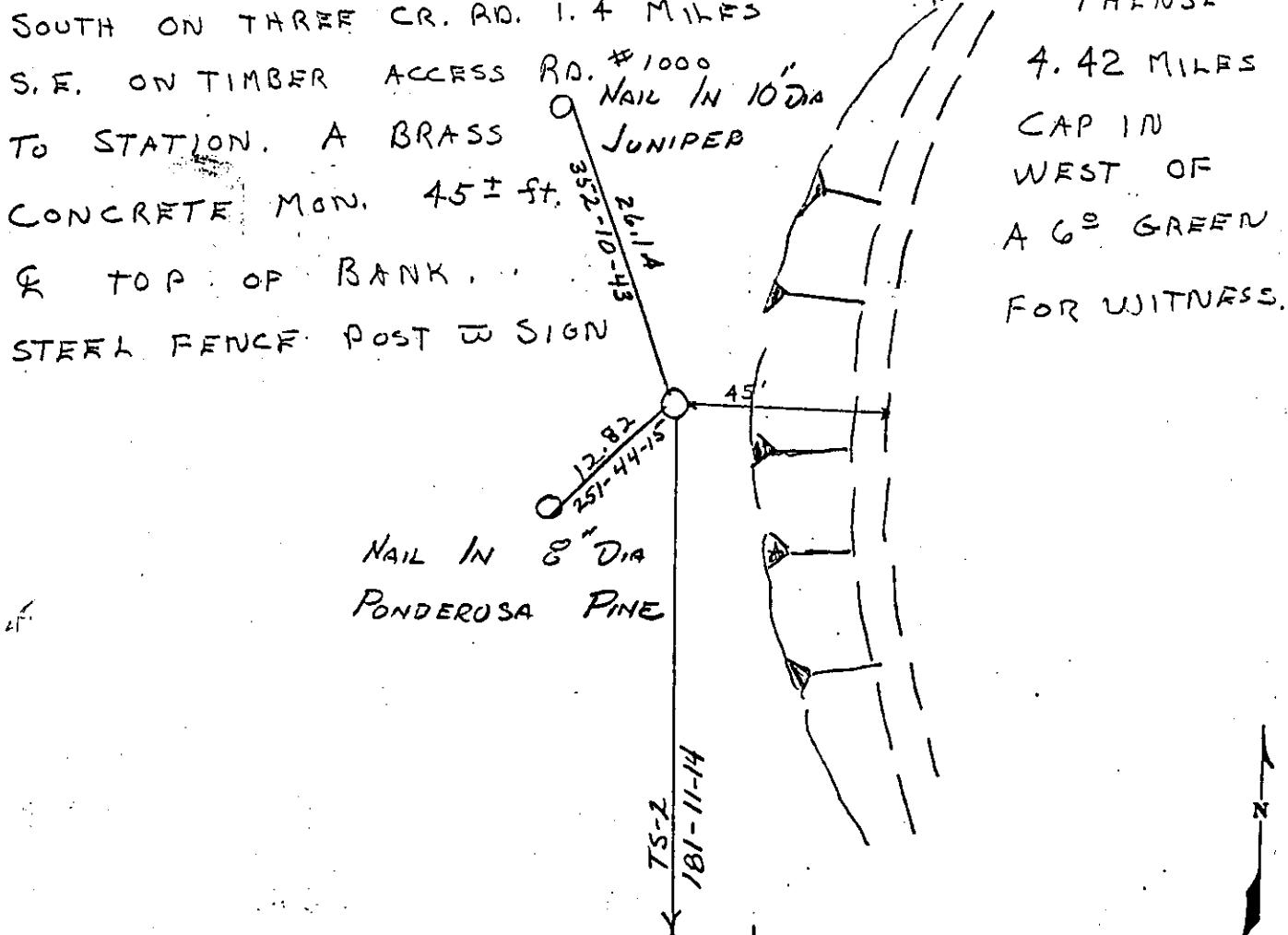
DA FORM 1 OCT 64 1959

**REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.**

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
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COUNTRY OREGON	TYPE OF MARK B.C.	STATION TS-3	H.V. 35 15S, 10E
LOCALITY SISTERS ORE.	STAMPING ON MARK TS-3 H.V. 35 15S, 10E	AGENCY (CAST IN MARKS)	ELEVATION 3386.407 (FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/1947 ADJUSTMENT
(NORTHING)(EASTING) (FT) 206,565.97	(EASTING)(NORTHING) (FT) 1,736,627.54	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) JACW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE NOV. 1976
TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH	
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
			GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION
AND THREE CREEK LAKE RD. C ELM ST. OR.
SOUTH ON THREE CR. RD. 1.4 MILES
S.E. ON TIMBER ACCESS RD. #1000
TO STATION. A BRASS
CONCRETE MON. 45± ft.
& TOP OF BANK.
STEEL FENCE POST W SIGN



SKETCH

DA FORM 1959 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

14

DA FORM 1959
1 OCT 64

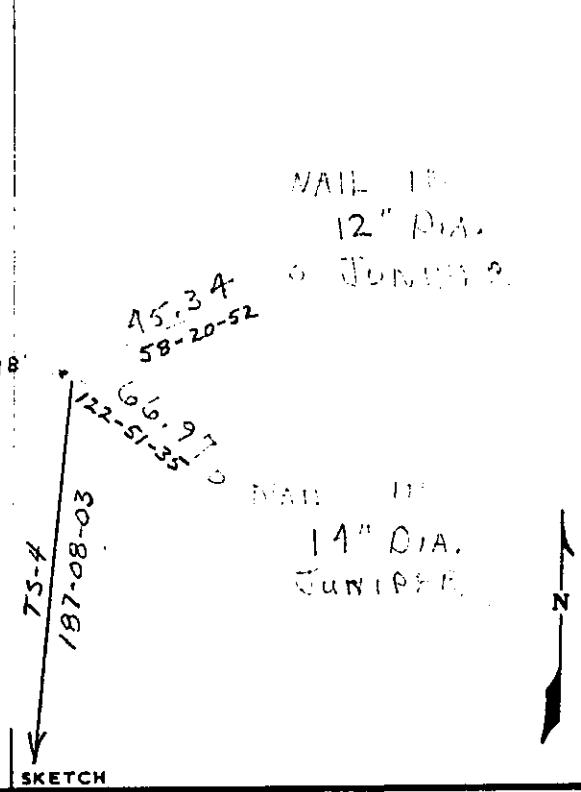
**REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.**

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

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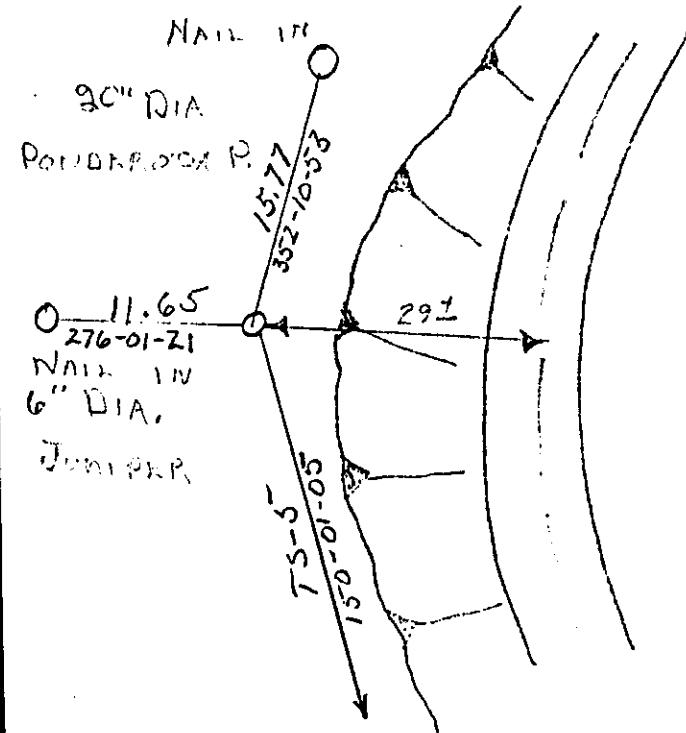
COUNTRY DECHUTES Co.	TYPE OF MARK I.R. (SILVER)	STATION TG-5	A.V. 35 155.10 E	
LOCALITY SISTERS, ORE.	STAMPING ON MARK TG-5	AGENCY (CAST IN MARKS)	ELEVATION (FT) 3355.858 (M)	
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/1947 ADJUST.	
(NORTHING)(EASTING) (FT) 208,210.09 (M)	(EASTING)(NORTHING) (FT) 1737,728.31 (M)	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976	
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY. #20 AND THREE CREEK LAKE RD. (HWY 35, OR 244 CR. RD.) SOUTH ON THREE CR. RD. 1.4 MILES THENCE SE ON TIMBER ACCESS RD. #1000 4.02 MILES TO STATION ON R.R. SHOULDER. A 6" SILVER STEEL FENCE POST W SIGN FOR DIRECTIONS



CONTROLLER DESCHUTES CO.	TYPE OF MARK I.R. 3 SUP-CAP	STATION TS-6 HV. 26 155, 10 E	
LOCALITY SISTERS, OR.	STAMPING ON MARK TS-6	AGENCY (CAST IN MARKS)	ELEVATION 3342.309 (FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/1947 ADJUSTMENT
(NORTHING)(EASTING) (FT) 210,081.97 (M)	(EASTING)(NORTHING) (FT) 1736,648.36 (M)	GRID AND ZONE OS S NORTH	ESTABLISHED BY (AGENCY) DADM 5777-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 3RD
TO OBTAIN	GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
			GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY. #20
AND THREE CREEK LAKE RD. (CEN. ST. OR RIVER CR. RD.)
SOUTH ON THREE CR. RD. 1.4 MILES THENCE C.E. ON
RIVER ACCESS RD. #1000 3.57 MILES TO STATION.
A SUR-CAP IN CONCRETE WALL 29' 7.24' MFT ON E
TOP OF BANK. A 6" X 1" STEEL TUBE BOLT IN SIGN
FOR NAVIGATION.



SKETCH

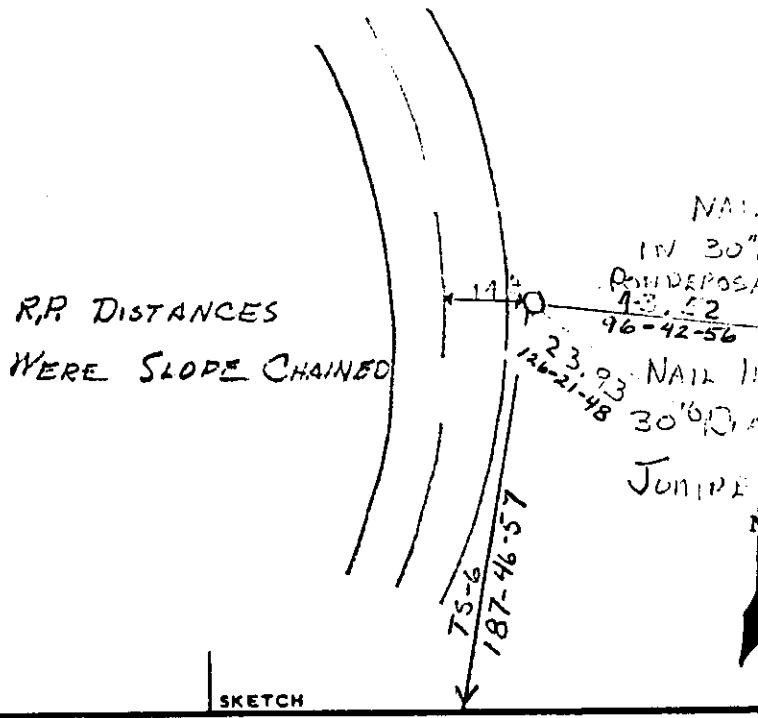
DA FORM 1959
1 OCT 64

REPLACES DA FORMS 1959
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DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
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COUNTRY DECHUTES CO.	TYPE OF MARK I.P. SUR-CAP	STATION TS-7 H.1; 26 155.10E		
LOCALITY SISTERS, ORE.	STAMPING ON MARK TS-7	AGENCY (CAST IN MARKS)	ELEVATION 3329.977	(FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/947 ADJUSTMENT	
(NORTHING)(EASTING) (FT) 210940.52	(EASTING)(NORTHING) (FT) 1736765.70	GRID AND ZONE OCS North	ESTABLISHED BY (AGENCY) DAEW 57-71-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE NOV. 1976	ORDER 320
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEOGRAPHIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF LINE 120
AND THREE CROWN LAKE RD. (ELEM. RD.) OR ELM CROWN
GOAL ON THREE RD. RD. 1.4 MILES THENCE S.E. ON
THREE Access Rd. 1.00 3.12 MILES TO CHAIN.
A SUR-CAP AND CONCRETE MON. 14' S.E. EAST OF ELEM RD.
SHOULDER. A 6° GREEN STEEL TRICE POST IN SIGHT FOR
WITNESS



SKETCH

DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
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COUNTRY DI SCHAUTS Co.	TYPE OF MARK J.P. 3 SOT-CAP	STATION TS-A H.V. 26 153, 105		
LOCALITY SISTERS, ORE.	STAMPING ON MARK TS-A	AGENCY (CAST IN MARKS)	ELEVATION (FT) 3318.404	(M)
LATITUDE	LONGITUDE	DATUM	DATUM	
(NORTHING)(EASTING) (FT) 211970.51	(EASTING)(NORTHING) (FT) 1736397.86	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DAWN 57-77-C-000	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976	ORDER 3RD
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVING TO DESCRIPTION: FROM INTERSECTION OF Hwy.
AND THREE CREEK RD. GO E. ON 3RD ST. OR ELY CR. RD.
GO N. ON THREE CREEK RD. 1.4 MILES THEN TURN L.
GO N. ON TIMBER ACCES RD. 2.660 3.21 MILES TO
STATION. A 20-R CAP IN CONCRETE MON. 14 1/2° EAST
OF S., ON RD. SHOULD P. AT 60' GREAT STER. FENCE TO
W. TURN FOR 10' THENS

NAIL IN

6" DIA.

1972 20.68 JUNIPER
52-22-46 SLOPE DIST.

NAIL IN
12" DIA.

PORPHYRY P.

SKETCH

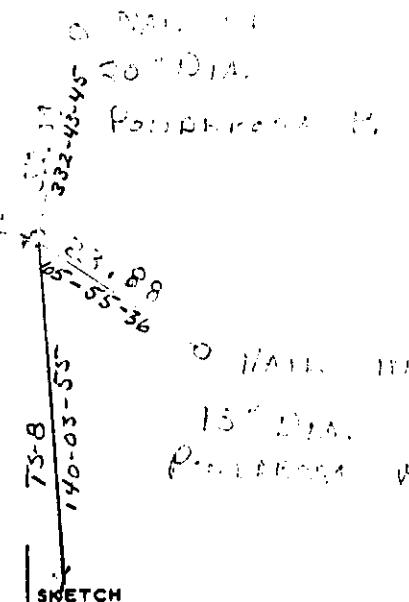
DA FORM 1959

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL ST
For use of this form, see TM 5-237; the proponent
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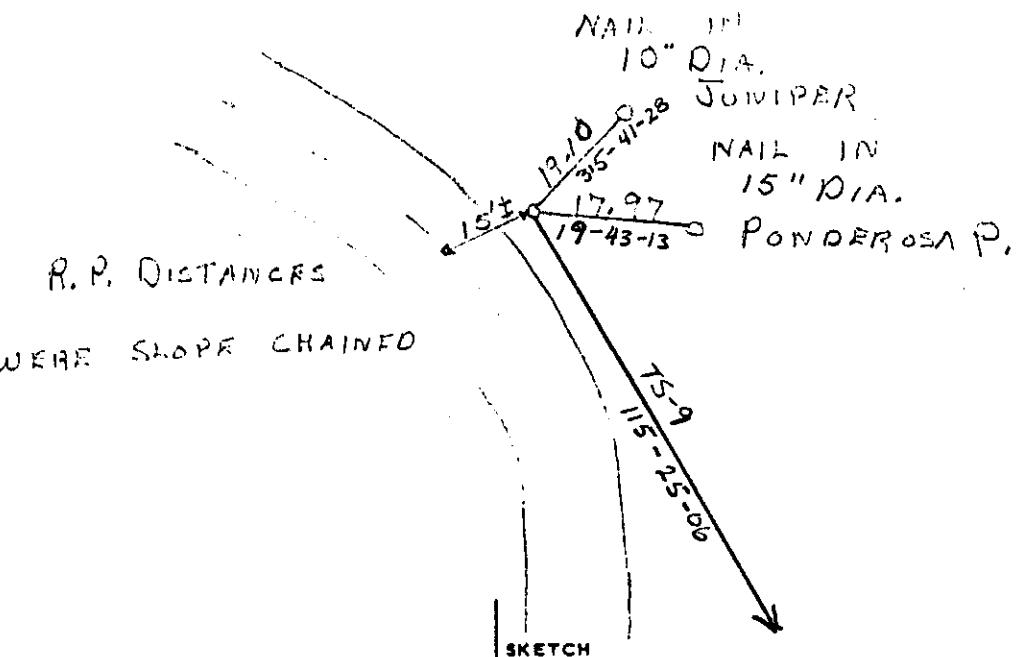
COUNTRY OKLAHOMA CO.	TYPE OF MARK I.R. 3 SURVEY	STATION TS-9 H.V. 26 10S, 10E	
LOCALITY BROKERS, OKL.	STAMPING ON MARK TS-9	AGENCY (CAST IN MARKS)	ELEVATION 3305, 233 (FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/1947 ADJUSTMENT
(NORTHING)(EASTING) 212,769.55 (M)	(EASTING)(NORTHING) 1735,729.74 (M)	GRID AND ZONE OS N08274	ESTABLISHED BY (AGENCY) DAEW 57-77-C-0006
(NORTHING)(EASTING) (FT)	(EASTING)(NORTHING) (M)	GRID AND ZONE	DATE Nov. 1976
TO OBTAIN	GRID AZIMUTH, ADD	"	ORDER 3 RD
TO OBTAIN	GRID AZ. (ADD)(SUB.)	"	"
OBJECT	AZIMUTH OR DIRECTION (GEODETIQUE)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
	" "	" "	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF Hwy 20 AND THREE CREEK LAKE RD. (E. 11 ST. OR E. 12 ST. RD.) GO ON THREE CREEK RD. 1.4 MILES THEN TURN LEFT ON TIMBER ACRES RD. #1000 3.00 MILES TO STATION. A CONCRETE PON. 13' 3" FT. EAST OF RD., ON RD. SHOULDER. A 6" GREEN STEEL PIPE PON. 6" SINK BORN W/ 1947



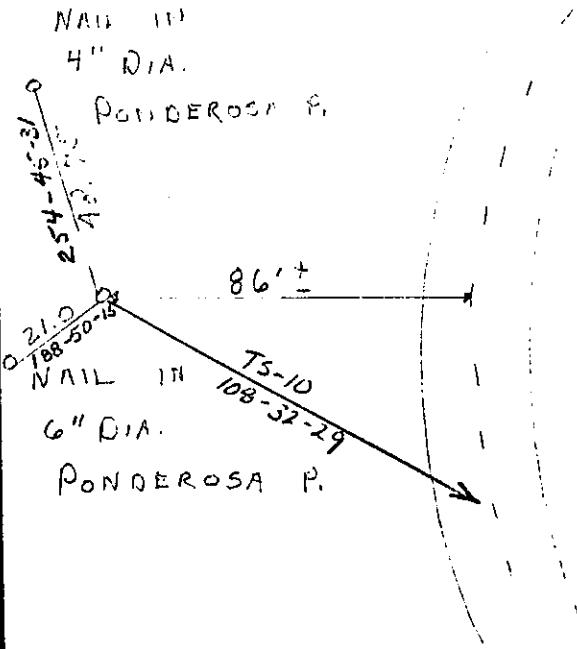
COUNTRY DESCHUTES Co.	TYPE OF MARK I.R. 3 SUR-CAP	STATION TS-10 H.V. 26 155, 10E	
LOCALITY SISTERS, ORE.	STAMPING ON MARK TS-10	AGENCY (CAST IN MARKS)	ELEVATION 3298.412 (FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 1/1947 ADJUSTMENT
(NORTHING)(EASTING) 213, 113.03 (FT) (M)	(EASTING)(NORTHING) 1,735, 006.16 (FT) (M)	(FT) GRIDS AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DALW 57-77-C-0006
(NORTHING)(EASTING) 213, 113.03 (FT) (M)	(EASTING)(NORTHING) 1,735, 006.16 (FT) (M)	(FT) GRIDS AND ZONE	DATE Nov. 1976 ORDER 38
TO OBTAIN	GRID AZIMUTH, ADD		" TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)		" TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
	" "	" "	GRID DISTANCE (METERS) (FEET)

DRIVE 1/2 DESCRIPTION: FROM INTERSECTION OF HWY 20
 AND THREE CREEK LAKE RD. (ELM ST. OR ELM CR. RD.)
 SOUTH ON THREE CR., HWY. 1.4 MILES THENCE S.E.
 ON TIMBER ACCESS RD. #1000 2.83 MILES TO STATION.
 A SUR-CAP IN CONCRETE MON. 15 ± ft. EAST OF C
 ON RD. SHOULDER. A 6" GREEN STEEL FENCE POST
 TO SIGN FOR LUMINA



COUNTRY DESCHUTES Co.	TYPE OF MARK I.R.I SUR-CAP		STATION TS-11	<i>pp</i>	H.Y. 27 1551.15
LOCALITY SISTICK, ORE.	STAMPING ON MARK TS-11		AGENCY (CAST IN MARKS)	ELEVATION (FT) 3294.251	(M)
LATITUDE	LONGITUDE		DATUM	DATUM 1929 w/1967 ADJUSTMENT	
(NORTHING)(EASTING) 213,473.10	(FT) (M)	(EASTING)(NORTHING) 1733,932.61	(FT) (M)	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE	DATE Nov. 1976	ORDER 320
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)	(FEET)

DRIVE TO GRESHAMON: FROM INTERSECTION OF HIGHWAY 20
AND THREE CREEK LAKE RD., TURN LEFT ON 1/2 MILE ROAD.
GO ON THIS ROAD FOR 1/2 MILE, TURN LEFT.
ON THIS ROAD TURN LEFT, 0.60 MILES. TURN LEFT.
STATION A SUR-CAP IN EASEMENT MARS. 86' 1 FT.
WEST OF S. ON WILSON RD., A 6" GRAIN STAKE
FENCE POST IN EASEMENT FENCE LINE.



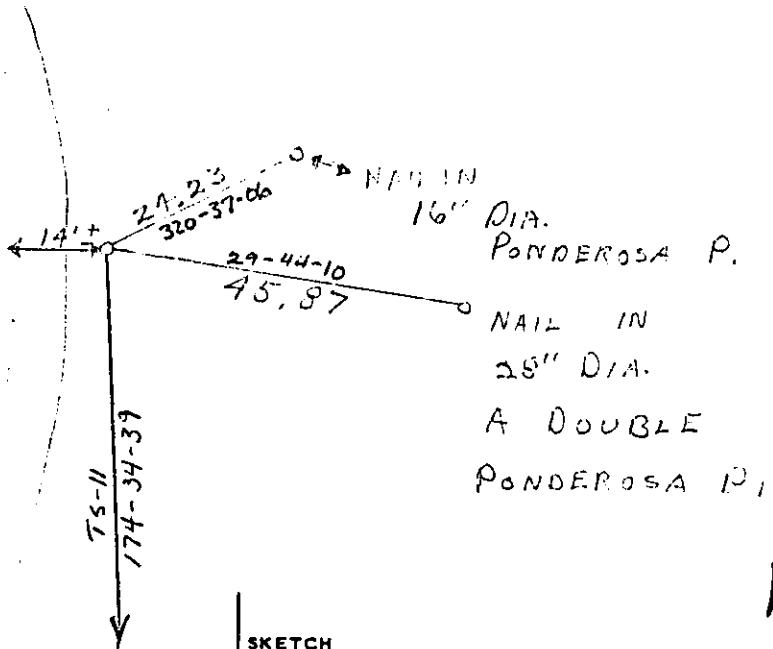
SKETCH

COUNTRY DESCHUTES Co.	TYPE OF MARK B.C.	STATION TS-12 H.Y. 22 15S, 10E
LOCALITY TRUCKEE, ORR	STAMPING ON MARK TS-12 H.Y. 22 15S, 10E	AGENCY (CAST IN MARKS)
LATITUDE	LONGITUDE	DATUM
(NORTHING)(EASTING) 216,025.57 (FT) (M)	(EASTING)(NORTHING) 1733,670.32 (FT) (M)	GRID AND ZONE OCS NORTH
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE
TO OBTAIN	GRID AZIMUTH, ADD	TO THE GEODETIC AZI
TO OBTAIN	GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZI
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH
	° / #	° / #

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY 9
AND TRUCKEE CREEK RD. C ELM ST. ON ELY, NV. P.M.
GO N. ON TRUCKEE CREEK RD. 1.1 MILES THEN TO E.L.
ON TURNER ROAD, ACROSS 2.07 MILES TO

STATION. A BRASS PLATE IN CUPBOARD
EAST 31° 23' 37" NW. 1100 FEET. 16" DIA. 14" DIA.
PIANO. PLATE IS SIZE FOR CHAINING

P.H. DISTANCES
WERE SLOPE CHAINED



DA FORM 1959

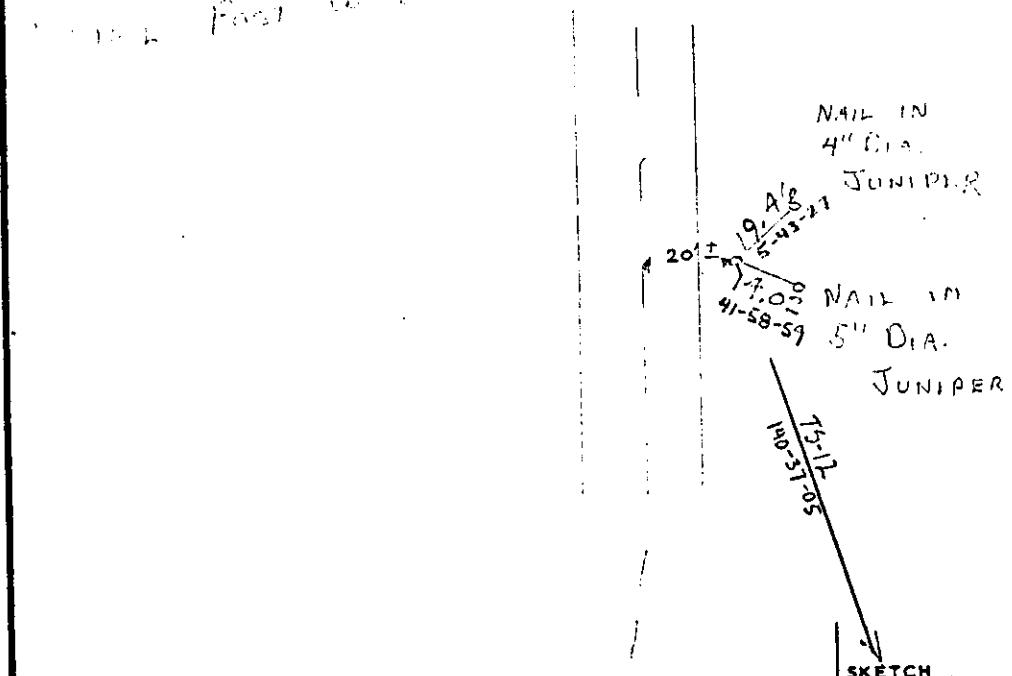
REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

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COUNTRY DIAMONUTS CO.	TYPE OF MARK I.P. SURVEY MARK	STATION TS-13	H.V. 22 15 S. 10 E	
LOCALITY CITY, STATE, ETC.	STAMPING ON MARK TS-13	AGENCY (CAST IN MARKS)	ELEVATION 3271.798 (FT) (M)	
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/ 1947 ADJUSTMENT	
(NORTHING)(EASTING) 217,085.96 (M)	(EASTING)(NORTHING) 1732,819.87 (M)	(FT) GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) D.A.C.W. 51-7-C-0006	
(NORTHING)(EASTING) (FT)	(EASTING)(NORTHING) (M)	(FT) GRID AND ZONE	DATE NOV. 1976	
TO OBTAIN GRID AZIMUTH, ADD			TO THE GEODETIC AZIMUTH	
TO OBTAIN GRID AZ. (ADD)(SUB.)			TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)
	° / ° / °	° / ° / °		

DEPT. OF THE
DESCRIPTION : From intersection of Hwy 20
CROSS ROAD RD. & 2nd St. To Hwy 20.
AND TIME
SIGHT ON
STATION. A SUR. CAR IN C. H. P. S. 1.82 MILES TO
ON HIGHWAY. APPROX. H. H. 20' ± 8'.
STATION. A SUR. CAR IN C. H. P. S. 6.94 MILES STATION.
EAST ON HIGHWAY RD. APPROX. H. H. 20' ± 8'.



DA FORM 1959

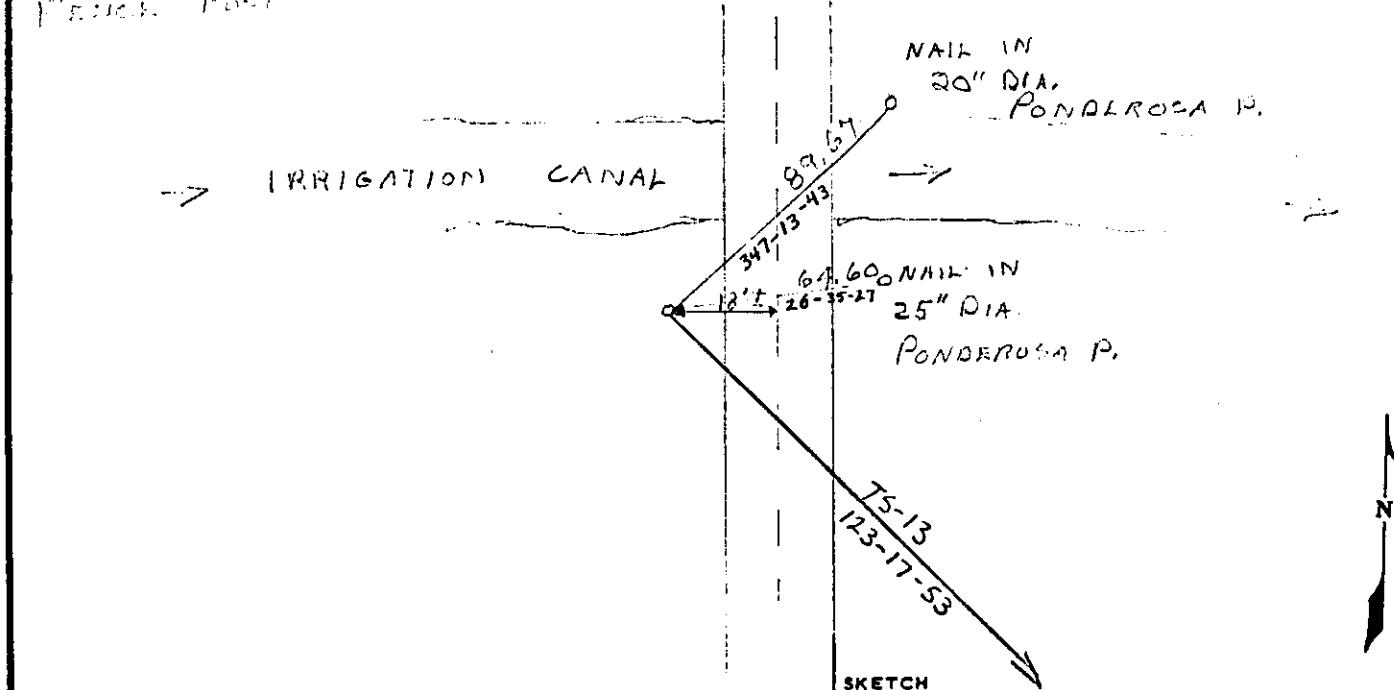
**REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.**

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STAT

For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

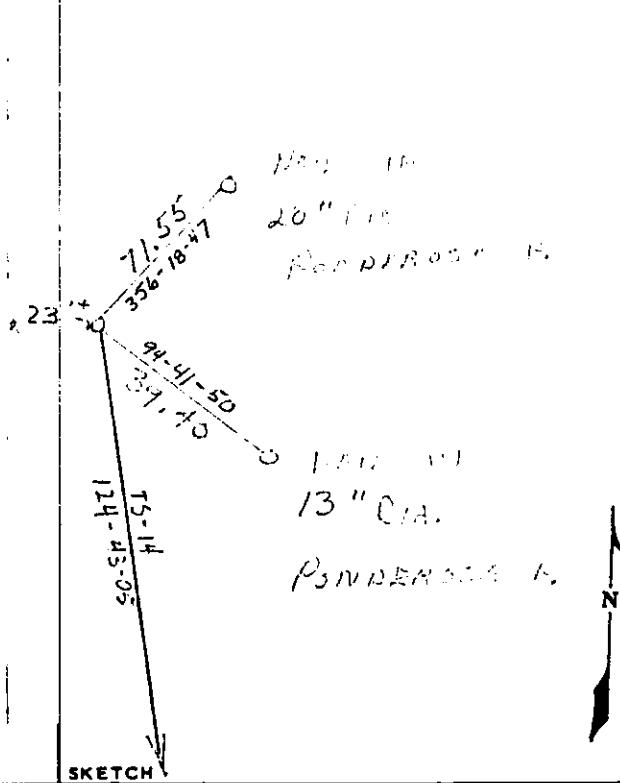
COUNTRY NEAR CHIQUILAS, CO.	TYPE OF MARK I.R. } SUR-CAP	STATION TS-14	H.V. 22 15S, 10E
LOCALITY SINATRAS, ORE.	STAMPING ON MARK TS-14	AGENCY (CAST IN MARKS)	ELEVATION 3283.142 (FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 4/1947 AQ.
(NORTHING)(EASTING) 218,720,20 (FT) (M)	(EASTING)(NORTHING) 1730,331,78 (FT) (M)	(FT) GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DAEW 57-77 C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) GRID AND ZONE	DATE Nov. 1976
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
			GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY 20 AND TIRRAH CRK. LAKELINE RD. (HWY 20 ON LAKELINE CR. RD.) SOUTH ON TIMBER CR. RD. 1.4 MILES. TURN LEFT S.E. ON TIMBER ACCESS RD. APPROX 1.22 MILES TO STATION. A SUR-CAP IN CONCRETE PLATE 18' ± FT. WEST OF RD., ON RD. SPANNER, A 6" DIA. STEEL PIPE, PORT IN CROWN FOR IRIGATION CANAL.



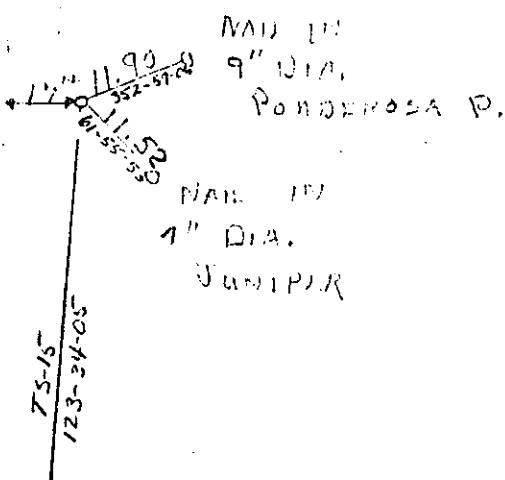
COUNTRY	TYPE OF MARK	STATION	
U.S.A. - CALIFORNIA FORT DIXON MILLS CO.	B.C.	TS-15 P.P.H.V. 16 155.105	
LOCALITY	STAMPING ON MARK	AGENCY (CAST IN MARKS)	ELEVATION
SACRAMENTO, CALIF.	TS-15 H.V. 16 155.105		(FT) 3265.310 (M)
LATITUDE	LONGITUDE	DATUM	DATUM
			1929 w/1947 ADJUST.
(NORTHING)(EASTING) (FT)	(EASTING)(NORTHING) (FT)	GRID AND ZONE	ESTABLISHED BY (AGENCY)
221,390.49 (M)	1726 478.00 (M)	OCS NORTH	DAWN 57-77-C-0006
(NORTHING)(EASTING) (FT)	(EASTING)(NORTHING) (FT)	GRID AND ZONE	DATE
			NOV. 1976
TO OBTAIN	GRID AZIMUTH, ADD	"	TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)	"	TO THE GEODETIC AZIMUTH

DRIVE TO DESCRIPTION: IRON INTERSECTION OF Hwy 82
AND THREE CREEK ROAD, 1.5 MILES S. ON Hwy 82.
GOALS ARE TAKEN ON THE RAILROAD LINE, 10 YARDS S.E.
ON TIMBER ACCESS RD. #1000 0.27 MILES TO STATION.
A BRASS CAP IN CONCRETE PLATE 23' 4 FT. EAST OF E, IN
RD. CHASIDY R. A 6² GRAIN STEEL FENCE POST IN CENTER
FOR UNLESS



NAME DESCRIPTION	TYPE OF MARK	STATION	TS-110 H 8155 (UE)	
LOCALITY	STAMPING ON MARK	AGENCY (CAST IN MARKS)	ELEVATION (FT) (M)	
LATITUDE	LONGITUDE	DATUM	DATUM	
(NORTHING)(EASTING) 224,294.43 (M)	(EASTING)(NORTHING) 1722,116.99 (M)	(FT) GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACH 57-77-C-006	
(NORTHING)(EASTING) (M)	(EASTING)(NORTHING) (M)	(FT) GRID AND ZONE	DATE Nov. 1976	ORDER 3 rd
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)

DRIVE TO DESCRIPTION: FROM INTERSECTION OF HWY 20
AND THREE CREEK RD. ON ELM ST. ON LINE CP. RD.
SOUTH ON THREE CREEK RD. FOR 1.4 MILES THENCE NW.
ON PLATEAU ACCESS AT 8000 0.75 MILES TO STATION
A SUR-CAP IN CONCRETE NAM. 17 1/4 EAST OF
RD. SECTION. A 6" GREEN FRNCE POST 10' HIGH FOR LUMINOS
RD. SECTION.



SKETCH

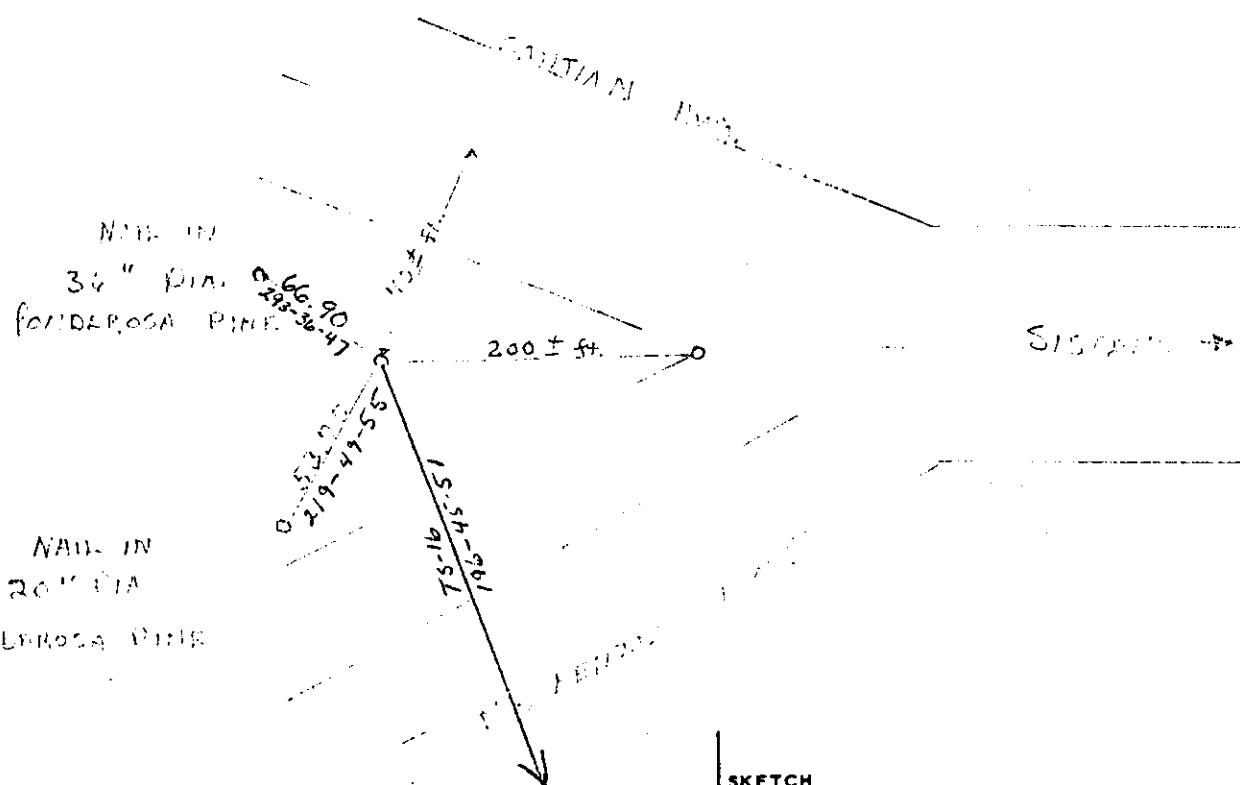
DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

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COUNTRY DESCHUTES CO.	TYPE OF MARK BPF CAP	STATION SISTERS H.V. 5 15S 10E	
LOCALITY SISTERS, OREG.	STAMPING ON MARK SISTER H.V. 5 15S 10E	AGENCY (CAST IN MARKS) USGS	ELEVATION 3187.769 (FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1924 w/1947 ADJUSTMENT
(NORTHING)(EASTING) 229,711.42 (M)	(EASTING)(NORTHING) 1,723,751.79 (M)	GRID AND ZONE OS North	ESTABLISHED BY (AGENCY) DAGW 57-77-C-006
(NORTHING)(EASTING) (FT)	(EASTING)(NORTHING) (M)	GRID AND ZONE	DATE Nov. 1976
			ORDER 3RD
TO OBTAIN	GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD) (SUB.)		TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
	" "	" "	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: MONUMENT LIES 200± ft. WEST OF
 INTERSECTION OF Mc KEESE HWY & SANTIAM HWY.
 STATION IS A PINE TREE IN CONCRETE 70± ft.
 SOUTH OF THE J. OF THE SANTIAM HWY, MARKED BY
 A STANDARD SIGN AND METAL PLATE.



DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

COUNTRY OREGON, U.S.A.	TYPE OF MARK COPPER CAST IN IRON.	STATION SGR-1 H&J	515° 10E
LOCALITY SISTERS, ORE.	STAMPING ON MARK SGR-1	AGENCY (CAST IN MARKS)	ELEVATION (FT) 3190.767 (M)
LATITUDE	LONGITUDE	DATUM	DATUM
(NORTHING)(EASTING) (FT) 233,694.61 (M)	(EASTING)(NORTHING) (FT) 1721,696.02 (M)	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DAEW 5777-C-GONL
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE ORDER Nov. 1976 380
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
	° ' "	° ' "	GRID DISTANCE (METERS) (FEET)

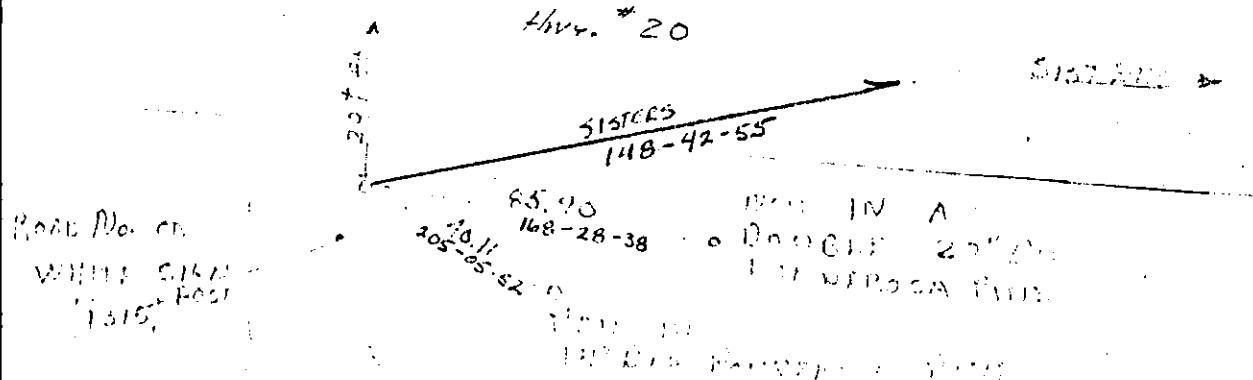
DRIVE TO DESCRIPTION: PLACEMENT IS 1.7 MILES WEST OF SISTERS U.S. POST OFFICE, 50' SOUTH OF R. 54 #20 ON SHOULDER OF ROAD.

A SURVEYOR'S STATION IN CONCRETE PLATE.

MARKED BY A STANDARD STATION MARK AND

LANDMARK ROAD.

Hwy. #20

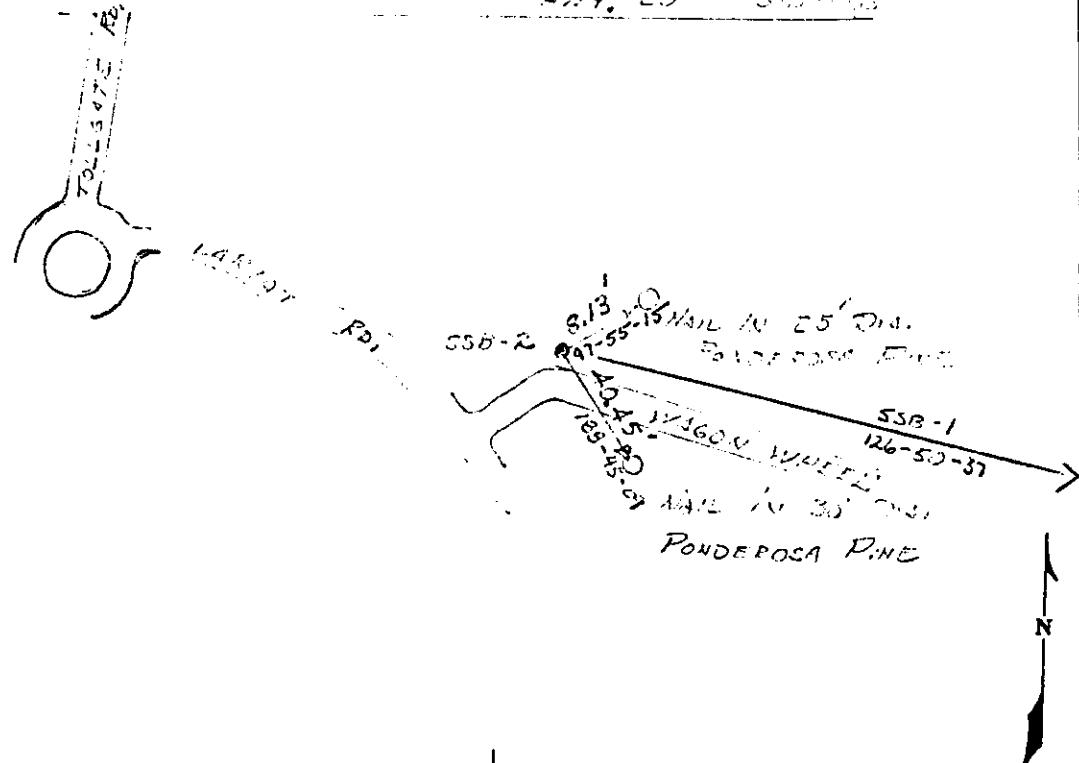


SKETCH

COUNTRY OFSCHUTES CO.	TYPE OF MARK SUR-CAP	STATION SSE-2 H 31 143 10E		
LOCALITY SISTERS, ORE.	STAMPING ON MARK SSB-2 1176	AGENCY (CAST IN MARKS)	ELEVATION (FT) (M)	-
LATITUDE	LONGITUDE	DATUM	DATUM	-
(NORTHING)(EASTING) 236,196.01	(EASTING)(NORTHING) 1717,556.86	(FT) (M)	GRID AND ZONE 0CS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-Canada
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 3RD
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: North On Hwy. 20 Incline From
CITY OF U.S. CITY MILE 1.5, TURN LEFT ON WAGON WHEEL RD.
THENCE LEFT ON WAGON WHEEL RD. TURN LEFT ON WAGON WHEEL
RD. 200' E TO SUR-MARK. MARKING BEING SUR-CAP IN
CONCRETE MUL. MARKED BY A STANDARD SURV. AND METAL
POST.

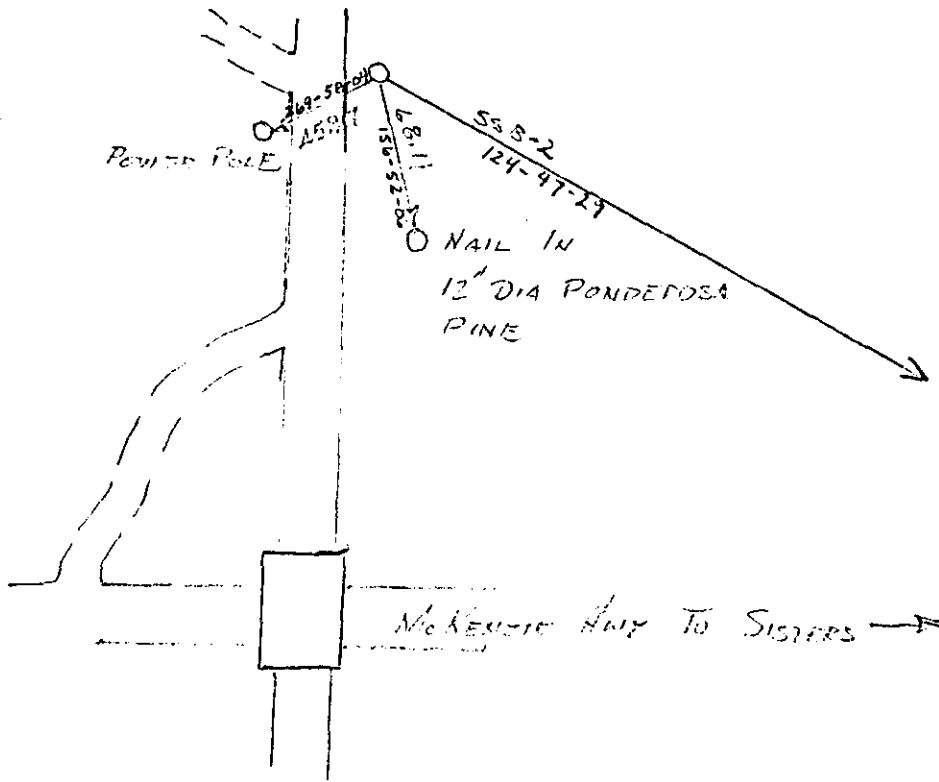
Hwy. 20 S 45° 55' E



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COUNTRY DESCHUTES	TYPE OF MARK SUR-CAN	STATION SSB - 3	H&V 31 145 10E	
LOCALITY SISTERS, ORE	STAMPING ON MARK SSB - 3	AGENCY (CAST IN MARKS)	ELEVATION 3258.052	(FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/1947 ADJUSTMENT	
(NORTHING)(EASTING) (FT) 238,664.74	(EASTING)(NORTHING) (FT) 1714, 090.04	(M)	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DAOW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)		GRID AND ZONE	DATE Nov. 1976
				ORDER 3 RD
TO OBTAIN	GRID AZIMUTH, ADD			TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD/SUB.)			TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)

LINE TO DESCRIPTION: TURN ON NO FENCE HWY. 216. MILES TO A ACCESS ROAD, RIGHT, (400' FROM OVERHEAD BRIDGE,) TURN LEFT 1.4 MILES ON A PRIVATE ROAD TO STATION. STATION IS A SUR-CAN 10' HIGH, 2' DIAMETER ROAD MARKED BY 4 STANDARD SURVEY METAL POST.



SKETCH

DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

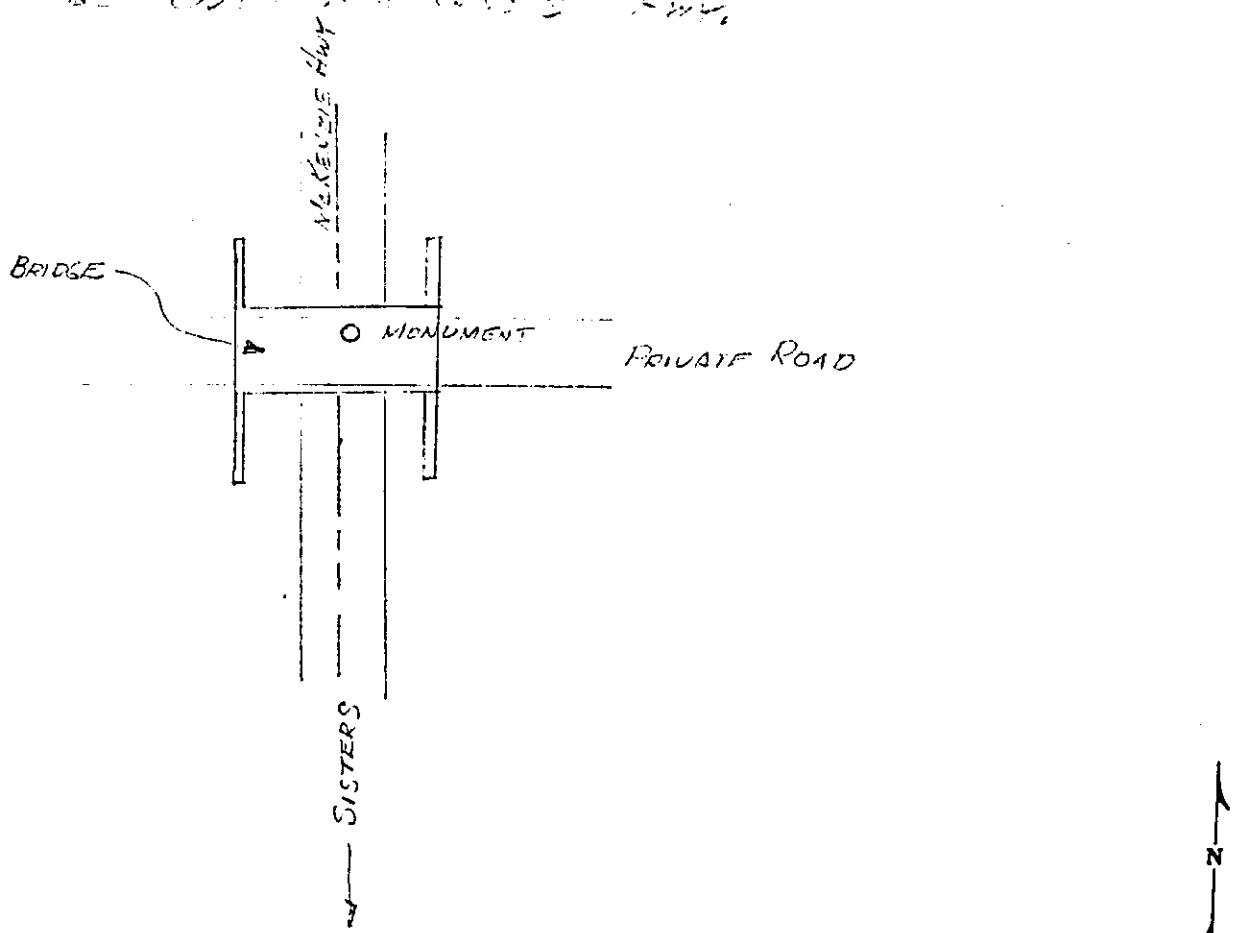
For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

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COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP	STATION SSB-4 HEV 1 155 9E	
LOCALITY SISTERS, O.C.	STAMPING ON MARK SS B-4 HEV 1 155 9E	AGENCY (CAST IN MARKS) U.S.C.E.	ELEVATION 3275.053 (FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM
(NORTHING)(EASTING) (FT) 232,418.81	(EASTING)(NORTHING) (FT) 1713,663.74	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DALW 57-77-L-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 32D
TO OBTAIN	GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
	° ° "	° ° "	GRID DISTANCE (METERS) (FEET)

DRIVE TO MONUMENT: NORTH ON MCKENZIE HIGHWAY 2.5 MILES
FROM SISTERS U.S. POST OFFICE.
STATION IS A BRASS CAP IN THE NORTH LANE OF

THE BRIDGE OVER THE MCKENZIE RIVER.



SKETCH

DA FORM 1959 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 67, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

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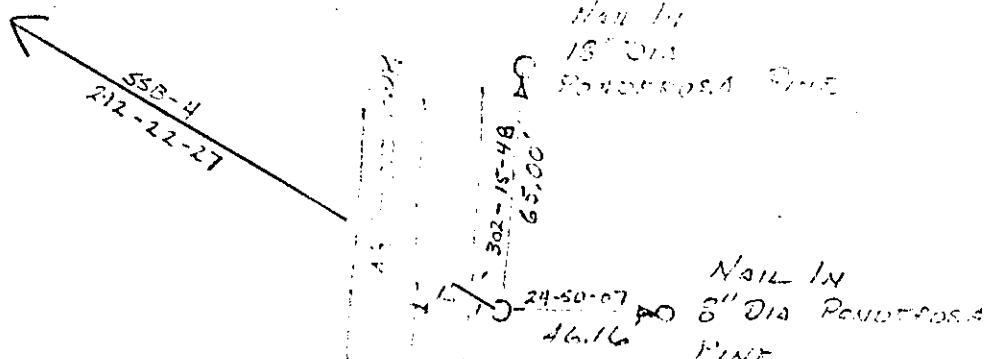
COUNTRY DESCHUTES	TYPE OF MARK SUB-MARK	STATION SSB-5 H&V 6 15S 10E		
LOCALITY SISTERS, OREG	STAMPING ON MARK SSB-5	AGENCY (CAST IN MARKS)	ELEVATION 3225.571	(FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 W/1947 ADJUSTMENT	
(NORTHING)(EASTING) (FT) 230,606.16	(EASTING)(NORTHING) (FT) 1,718,065.23	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976	ORDER 32D
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)

Return To DESCRIPTION: NOTE ON KELLOGG HWY. 16 MILE

PROBABLY 1/2 MILE WEST OF SISTERS, OREGON.

15' 2" ON SHOULDER. MARKED BY A STAKE

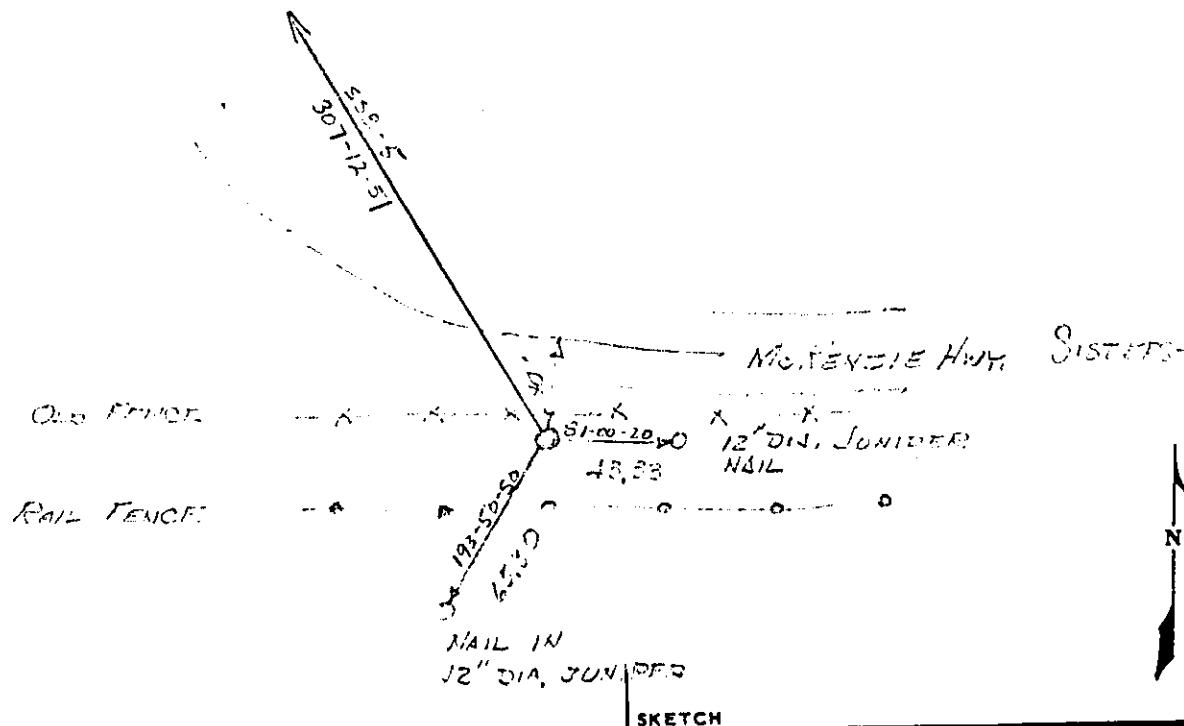
ONE SIDE ROAD.



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COUNTRY DESENTRAL	TYPE OF MARK Brass cap	STATION SSB-6	A&U 8 15S 10E	
LOCALITY SISTERS, ORE	STAMPING ON MARK SSB-6 HV 5 15 S 10 E	AGENCY (CAST IN MARKS) USCC	ELEVATION 3210.996 (FT) (M)	DATUM 1929 W/1947 ADJUSTMENT
LATITUDE	LONGITUDE	DATUM		
(NORTHING)(EASTING) (FT) 229,627.02	(EASTING)(NORTHING) (FT) 1719,355.60	(M)	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 51-77-C-006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING)	(FT) (M)	GRID AND ZONE	DATE Nov. 1976
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (FEET)

DRIVE TO DESENTRAL: North on Hwy 16 (ROUTE 54) 1.3 miles,
 FROM SISTERS U.S. Post Office, Then turn left 10°
 South of Hwy. Station being a brass cap in
 a concrete base, about 34 ft standard sign
 METAL POST.



SKETCH

DA FORM 1959 OCT 64

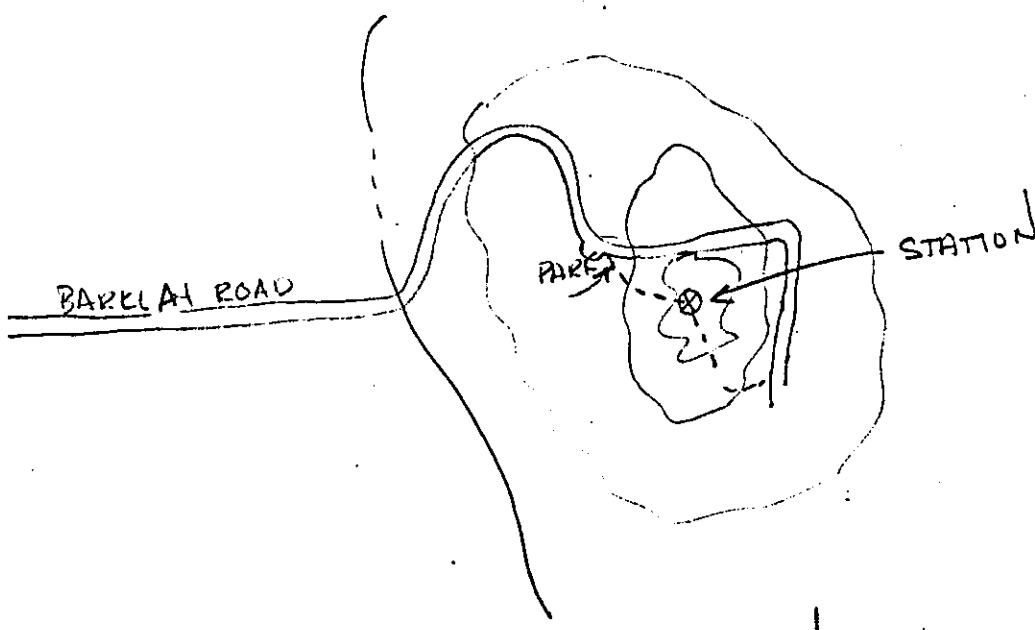
REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
 For use of this form, see TM 5-237; the proponent
 agency is U.S. Continental Army Command.

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COUNTRY DESCHUTES	TYPE OF MARK SUR CAP	STATION AH-1 H&U 3 TISS 10E		
LOCALITY SISTERS, ORE	STAMPING ON MARK AH-1	AGENCY (CAST IN MARKS) USACE	ELEVATION 3372.17 VA	(FT) 1000
LATITUDE	LONGITUDE	DATUM	DATUM 1927/01 1947 ADJ	
(NORTHING)(EASTING) 232, 125.67	(FT) (EASTING)(NORTHING) 1732, 345.09	(FT) (M)	GRID AND ZONE OCS North	ESTABLISHED BY (AGENCY) DACW-57-77-C-6006
(NORTHING)(EASTING) (M)	(EASTING)(NORTHING) (M)	(FT) (M)	GRID AND ZONE	DATE NOV 1976
		GRID AZIMUTH, ADD GRID AZ. (ADD)(SUB)	TO THE GEODETIC AZIMUTH TO THE GEODETIC AZIMUTH	
TO OBTAIN	OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
TO OBTAIN				GRID DISTANCE (METERS) (FEET)

DRIVE TO: NORTH SIDE OF MCKINNEY BUTTE NEAR THE CENTER OF SEC. 3, TISS RIDE. PROCEED EAST ON BARKLEY ROAD JUST SOUTH OF SISTERS AIRPORT CROSSING INDIAN FORD CREEK @ RISE OF BUTTE. GO UP BUTTE TO WHERE MAIN ROAD TURNS EAST - PARK IN PARKING LOT & PROCEED UP THE BUTTE ON OLD ROAD .2 MILES TO STATION.



SKETCH

DA FORM 1 OCT 64 1959

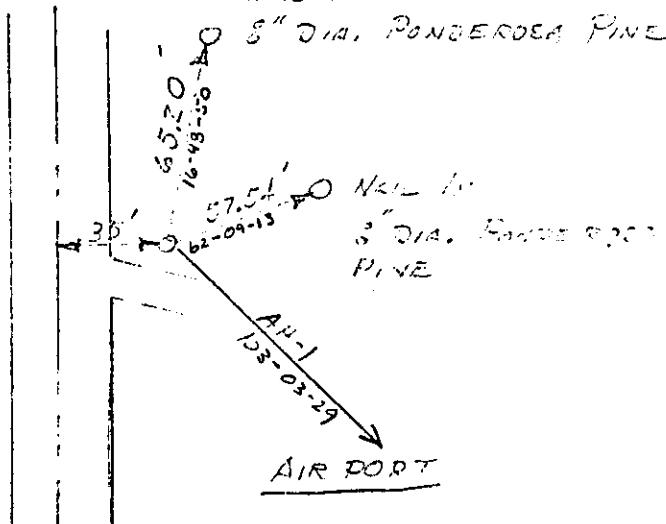
REPLACES DA FORMS 1958
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

COUNTRY DESCHUTE S	TYPE OF MARK BRASS CAP	STATION AIRPORT	
LOCALITY SISTERS, ORG	STAMPING ON MARK AIRPORT 44° 15' 10" E	AGENCY (CAST IN MARKS) 115CE	ELEVATION (FT) 3164.955 (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 4/1947 ADJUSTMENT
(NORTHING)(EASTING) (FT) 233,355.97	(EASTING)(NORTHING) (FT) 1727,000.59	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 300
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETEC AZIMUTH	
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETEC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETEC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: East Two Blocks From Sisters U.S. Post Office Then North On N. Locust 1 Mile From Post Office To Sisters Airport, Mon. Is In The North West Corner Of Amazon, Oregon.

35° 1' 1" N 112° 5' 1" W



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COUNTRY DESCHUTES	TYPE OF MARK Sur. CAD	STATION HE A-7	A&U 33 14S 10E	
LOCALITY SISTERS, OCE	STAMPING ON MARK HEA-7	AGENCY (CAST IN MARKS)	ELEVATION 3153.438	(FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/1947 ADJUSTMENT	
(NORTHING)(EASTING) 234, 886, 42	(FT) (EASTING)(NORTHING) (FT) 1727083.68	GRID AND ZONE 2S North	ESTABLISHED BY (AGENCY) DACW 57-TI-C-0006	
(NORTHING)(EASTING) (M)	(M)	GRID AND ZONE	DATE Nov. 1976	ORDER 320
		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH	
		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH	
TO OBTAIN TO OBTAIN OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)

Moving To Description: North 0.3 mile from Station HE A-7
 Station is 31 ft left of E. of Camp Polk Rd. At 31 ft.
 Line A 226-55-26 Dist. 14' 00" 100'.
 Line B 226-55-26 Dist. 14' 00" 100'.
 Line C 226-55-26 Dist. 14' 00" 100'.
 Line D 226-55-26 Dist. 14' 00" 100'.
 Line E 226-55-26 Dist. 14' 00" 100'.
 Line F 226-55-26 Dist. 14' 00" 100'.
 Line G 226-55-26 Dist. 14' 00" 100'.
 Line H 226-55-26 Dist. 14' 00" 100'.
 Line I 226-55-26 Dist. 14' 00" 100'.
 Line J 226-55-26 Dist. 14' 00" 100'.
 Line K 226-55-26 Dist. 14' 00" 100'.
 Line L 226-55-26 Dist. 14' 00" 100'.
 Line M 226-55-26 Dist. 14' 00" 100'.
 Line N 226-55-26 Dist. 14' 00" 100'.
 Line O 226-55-26 Dist. 14' 00" 100'.
 Line P 226-55-26 Dist. 14' 00" 100'.
 Line Q 226-55-26 Dist. 14' 00" 100'.
 Line R 226-55-26 Dist. 14' 00" 100'.
 Line S 226-55-26 Dist. 14' 00" 100'.
 Line T 226-55-26 Dist. 14' 00" 100'.
 Line U 226-55-26 Dist. 14' 00" 100'.
 Line V 226-55-26 Dist. 14' 00" 100'.
 Line W 226-55-26 Dist. 14' 00" 100'.
 Line X 226-55-26 Dist. 14' 00" 100'.
 Line Y 226-55-26 Dist. 14' 00" 100'.
 Line Z 226-55-26 Dist. 14' 00" 100'.

Nile in base of
Foot Ponderosa Rd.

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AIRPORT
1800-57-51

SISTERS GRN

N

SKETCH

DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

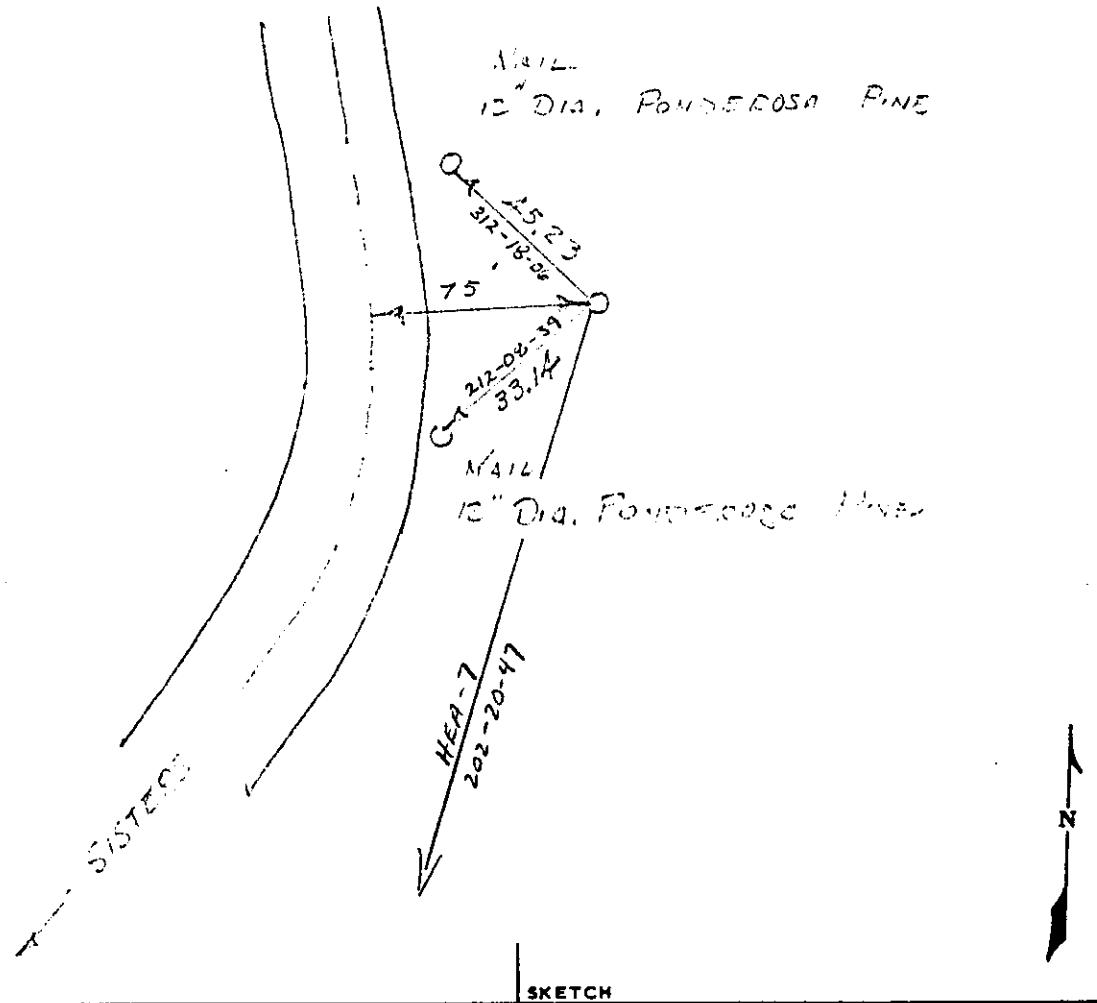
DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

42

COUNTRY <i>Deschutes</i>	TYPE OF MARK <i>SUR - CAP</i>	STATION <i>HFA-6 H&V 33-145 10E</i>		
LOCALITY <i>Sisters, ORE</i>	STAMPING ON MARK <i>HFA-6</i>	AGENCY (CAST IN MARKS)	ELEVATION <i>3148.655</i>	(FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM <i>1929 w/1947 ADJUSTMENT</i>	
(NORTHING)(EASTING) <i>2361826.09</i>	(FT) (EASTING)(NORTHING) <i>1727, 881.03</i>	(FT) (IM)	GRID AND ZONE <i>OCS NORTH</i>	ESTABLISHED BY (AGENCY) <i>DACW 57-TT-C-0006</i>
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE	DATE <i>Aug. 1976</i> ORDER <i>3rd</i>
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH
TO OBTAIN		GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (FEET)
	° ° "	° ° "		

DRIVE TO LOCATION : North on CAMD ROLL Rd. 0.7 MILES
ON THE NORTH END OF A CURVE LT. STATION IS 75'
RIGHT OR S. 10° E. RD.



SKETCH

DA FORM 1959 OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
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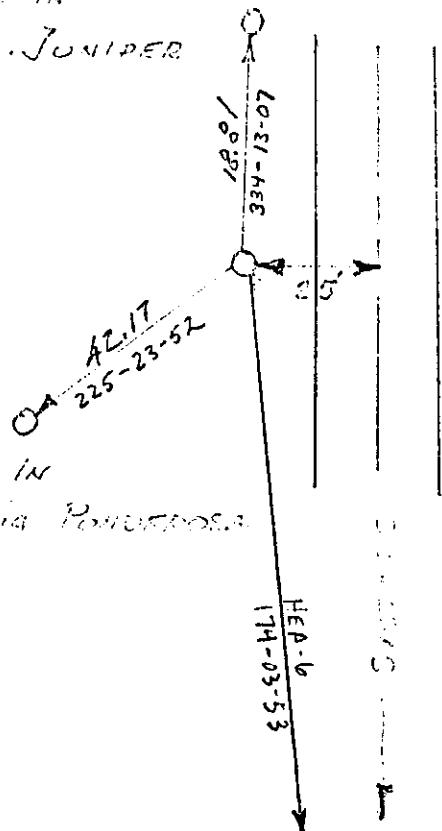
43

COUNTRY DESCHUTES	TYPE OF MARK SAC C-10	STATION HEI-5 HEU 333 145 10E		
LOCALITY SISTERS, ORE	STAMPING ON MARK HEI-5	AGENCY (CAST IN MARKS)	ELEVATION (FT) 3149.626	(M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/ 1947 ADJUST.	
(NORTHING)(EASTING) (FT) 238,376.73	(EASTING)(NORTHING) (FT) 1,727,719.82	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) OALW 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976	ORDER 3 RD
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)
			(FEET)	(FEET)

DRIVE TO Location: North On Camp Polk Rd, 1.0 mile from Sisters Airport. Continue ~ 25' left of L of road and marked by a small sign - metal post.

NAIL IN
8" DIA. JUNIPER

NAIL IN
12" Dia. Powdered



SKETCH

DA FORM 1959 OCT 64

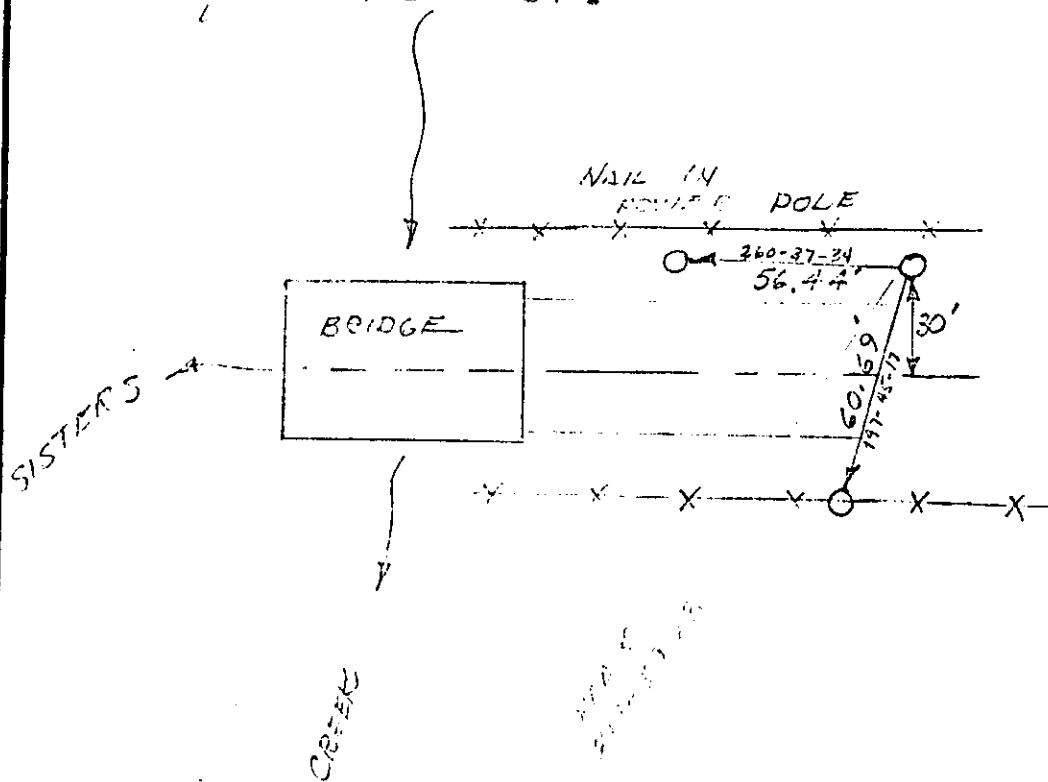
REPLACES DA FORMS 1959
AND 1960, 1 FEB 67, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
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COUNTRY PARACHUTES	TYPE OF MARK BRASS CAP	STATION HEA-4 HEV 28 14S 10E		
LOCALITY SISTERS, ORE	STAMPING ON MARK HEA-4 HV 33 14S 10 E	AGENCY (CAST IN MARKS) USCE	ELEVATION 3164.386 (FT)	(M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 W/1947 ADJUST.	
(NORTHING)(EASTING) 240,175.45	(EASTING)(NORTHING) 1,728,978.88	(FT) (M)	GRID AND ZONE 26S NORTH	ESTABLISHED BY (AGENCY) DALW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 3RD
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)
	" "	" "		

DRIVE TO LOCATION : NORTH ON CAMP POLK RD. 1.5 MILES (500' PAST SMALL CREEK) FROM SISTERS AIR PORT. STATION IS 30' LEFT OF R RD MARKED BY STANDECO SIGN " METAL POST .



SKETCH

DA FORM 1959 1 OCT 64

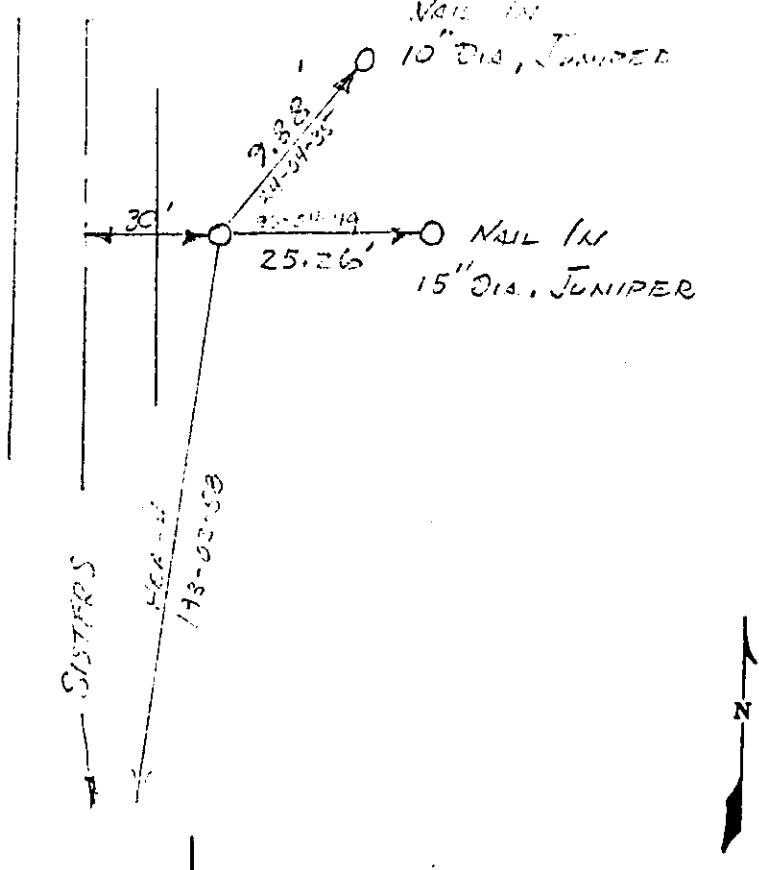
REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent agency is U.S. Continental Army Command.

COUNTRY DESCHUTES	TYPE OF MARK SUR. CAR	STATION HEA-3	HEV 27 14S 10E	
LOCALITY SISTERS, ORE	STAMPING ON MARK HEA-3	AGENCY (CAST IN MARKS)	ELEVATION 3227.182	(FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 w/1947 ADJ. UST.	
(NORTHING)(EASTING) 244,412.73	(EASTING)(NORTHING) 1729,962.29	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976	ORDER 3 RD
TO OBTAIN GRID AZIMUTH, ADD ° '		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB) ° '		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEOGRAPHIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (FEET)
	° '	° '		

DRIVE TO LOCATION: North Of Sisters Approximately

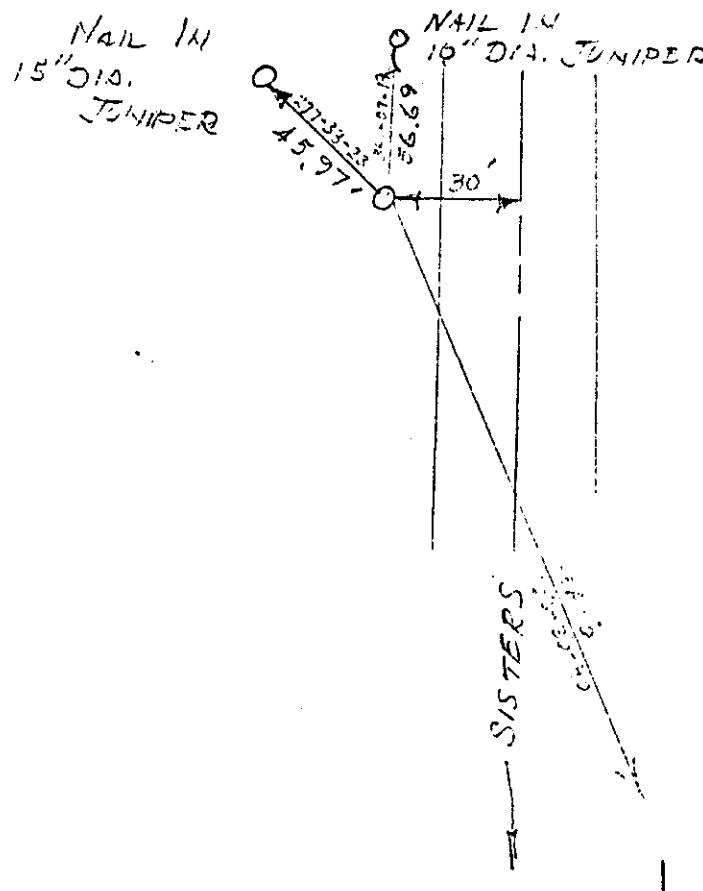
2.5 Miles On Camp Rock Rd, Turn Left On Indian Ford Rd. 0.4 Miles. Station Is 30' Right Of E Top Of A Hill. Between Two Juniper Trees, Metal Post.



SKETCH

COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP	STATION HEA-2	HJ 21 14S10E	
LOCALITY SISTERS, ORE	STAMPING ON MARK HEA-2 HJ 21 14S 10 E	AGENCY (CAST IN MARKS) USCE	ELEVATION 3224.535	(FT) (M)
LATITUDE	LONGITUDE	DATUM	DATUM	1929 w/1947 ADJUST.
(NORTHING)(EASTING) (FT) 246,589.49	(EASTING)(NORTHING) (FT) 1,729,322.09	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW-57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976	ORDER 3rd
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)
	° ° °	° ° °		

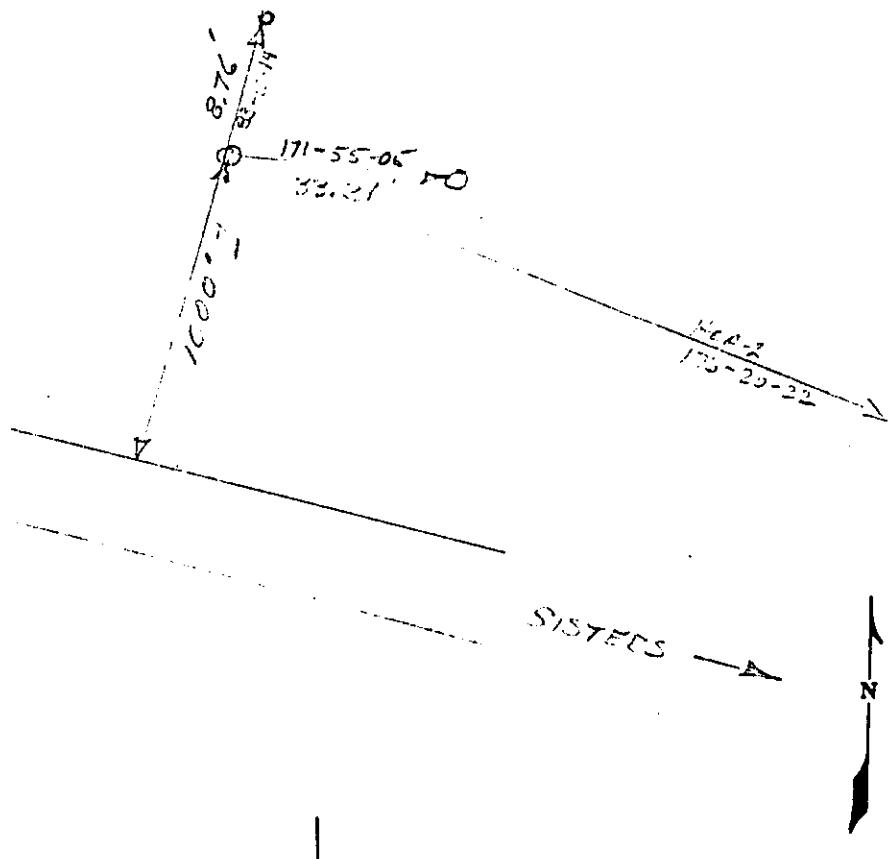
DRIVE TO LOCATION: NORTH OF SISTERS APPROXIMATELY 2.5 MILES ON CAMP FORD RD, TURN NORTH ON INDIAN FORD RD. 1.0 MILES, STATION IS 30' LEFT OF Q VISORED BY A STANDARD SIGN - HETZU POST.



SKETCH

COUNTRY DESCHUTES	TYPE OF MARK SUR-CAP	STATION H5A-1 H&J 21, 14 SIDE		
LOCALITY SISTERS, ORE	STAMPING ON MARK	AGENCY (CAST IN MARKS)	ELEVATION VA (FT) 3260.62. (M)	
LATITUDE	LONGITUDE	DATUM	DATUM 1929 N/1947 ADJUST.	
(NORTHING)(EASTING) (FT) 248,555.40	(EASTING)(NORTHING) (FT) 1729,196.32	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW-57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976	ORDER 320
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)

DRIVE TO LOCATION: NORTH OF SISTERS APPROXIMATELY 2.5 MILES ON CAMP POLK RD. THENCE NORTH ON INDIAN FORD RD. 1.3 MILES STATION IS 1000 ± NORTH OF RD. MARKED BY A STANDARD SIGN & METAL SET. ON THE BROW OF A HILL FACING WEST.

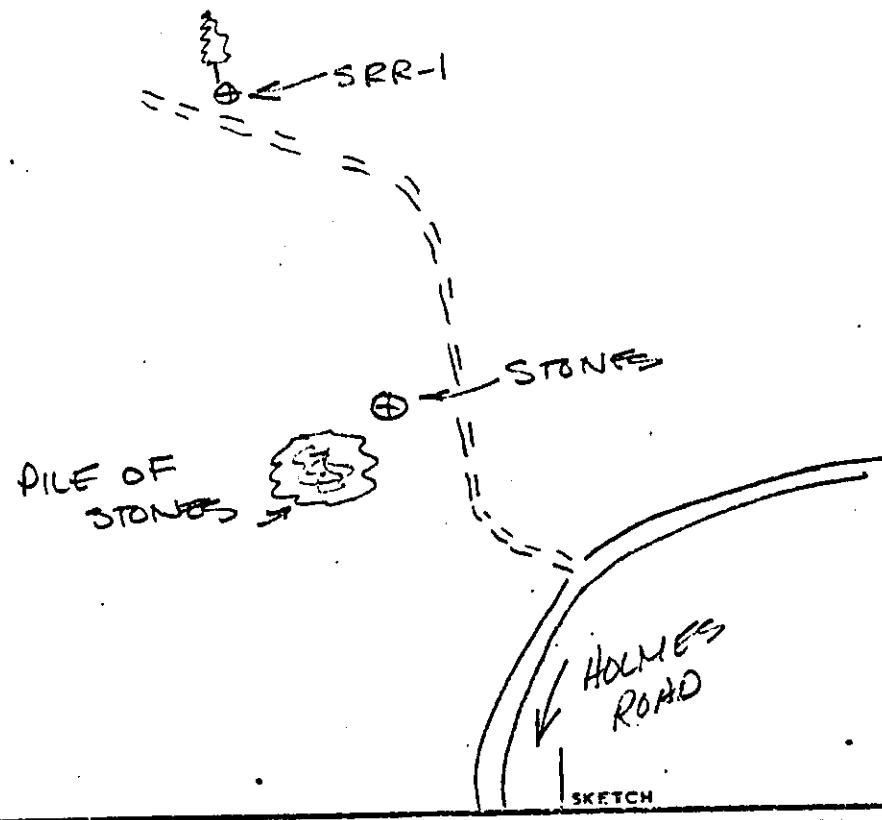


SKETCH

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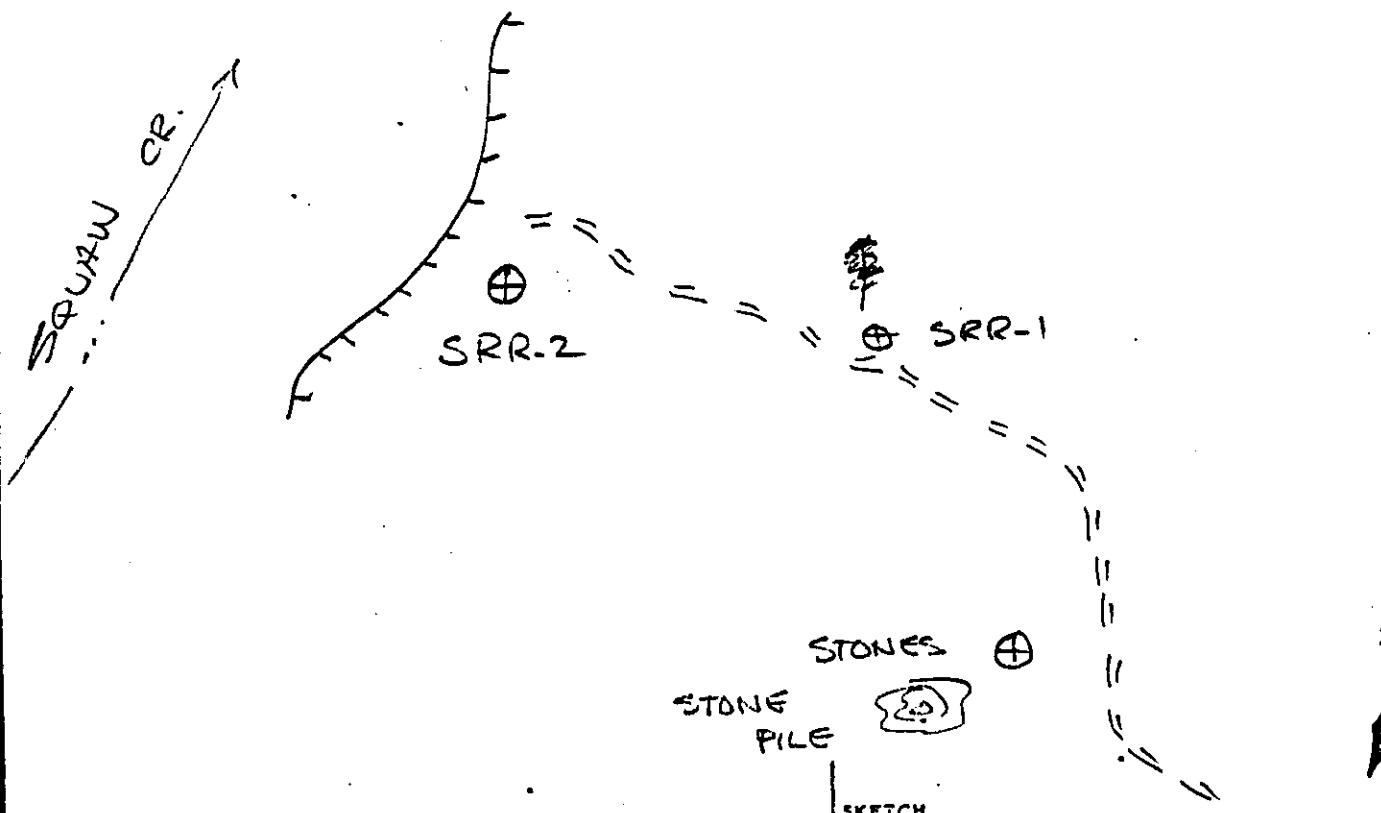
DESCRIPTION DESCHUTES		TYPE OF MARK SUR CAP	STATION SRR-1 H.E.U 35 13S1E	
LOCALITY SISTERS OR	STAMPING ON MARK SRR-1	AGENCY (CAST IN MARKS)		ELEVATION VA (FT) 2962.36 (M)
LATITUDE	LONGITUDE	DATUM		DATUM 1929/W 1947 ADJ
(NORTHING)(EASTING) (FT) 268,788,88 (M)	(EASTING)(NORTHING) (FT) 1,768,465,19 (M)	GRID AND ZONE OCS NORTH		ESTABLISHED BY (AGENCY) DACLW-57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE		DATE NOV 76 ORDER 3RD
TO OBTAIN	GRID AZIMUTH, ADD			TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)			TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (FEET)

APPROXIMATELY 700 FT NW OF STATION
 STONES ON THE NE SIDE OF A DIRT
 ROAD 3' SOUTH OF A JUNIPER TREE IN THE
 W $\frac{1}{2}$ OF SEC 35 T 12 S R 11 E



DESCRIPTION DESCHUTES	TYPE OF MARK SUR CAP	STATION SRR-2 #1 35, 13S 11E		
LOCALITY SISTERS OR.	STAMPING ON MARK SRR-2	AGENCY (CAST IN MARKS)	ELEVATION 2937.08 VA (FT)	
LATITUDE	LONGITUDE	DATUM	DATUM 1929 W / 1947 ADJ	
(NORTHING)(EASTING) 269, 182.52 (ft) (m)	(EASTING)(NORTHING) 1767, 777.91 (ft) (m)	(FT) GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW-57-77-C-0006	
(NORTHING)(EASTING) (ft) (m)	(EASTING)(NORTHING) (ft) (m)	(FT) GRID AND ZONE	DATE NOV '76	ORDER 3RD
TO OBTAIN TO OBTAIN		GRID AZIMUTH, ADD GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

STATION IS APPROX. 1700 NW OF STATION STONES
ON EDGE OF RIMROCK IN THE SW NW $\frac{1}{4}$ SEC
35 T 13S R 11E. SUR CAP IS CEMENTED
INTO FLAT ROCK -

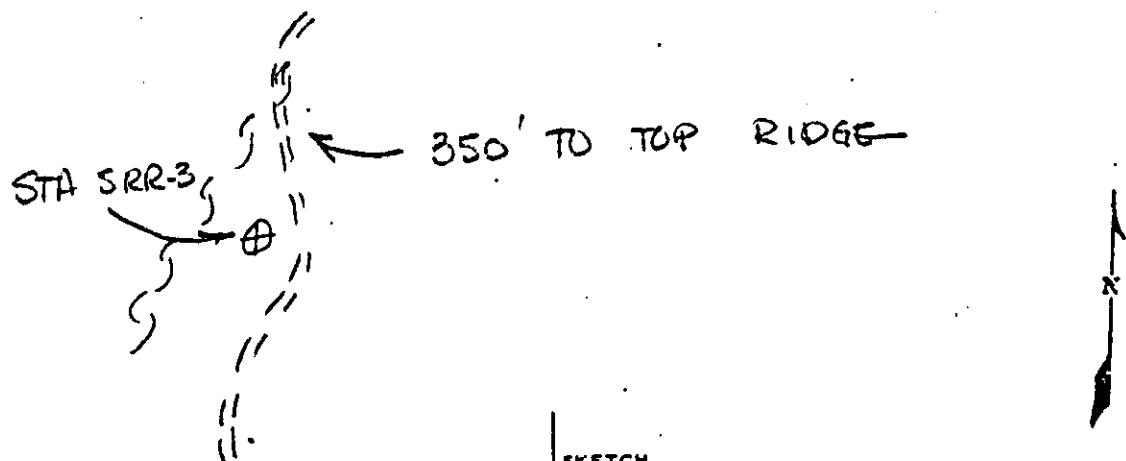


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COUNTRY DESCHUTES	TYPE OF MARK SUR CAP	STATION SRR-3	HEV 32 13S 11E
LOCALITY SISTERS	STAMPING ON MARK SRR-3	AGENCY (CAST IN MARKS)	ELEVATION 2950.19 VA (FT) + + +
LATITUDE 42° 26' 08.560	LONGITUDE 117° 55' 639.35	DATUM	DATUM 1929 / 1947 ADJ
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE BCS NORTH	ESTABLISHED BY (AGENCY) DA CW ST-17-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE NOV 76 ORDER 3RD
TO OBTAIN TO OBTAIN	GRID AZIMUTH, ADD GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
	° , ° , °	° , ° , °	GRID DISTANCE (METERS) (FEET)

DRIVE TO

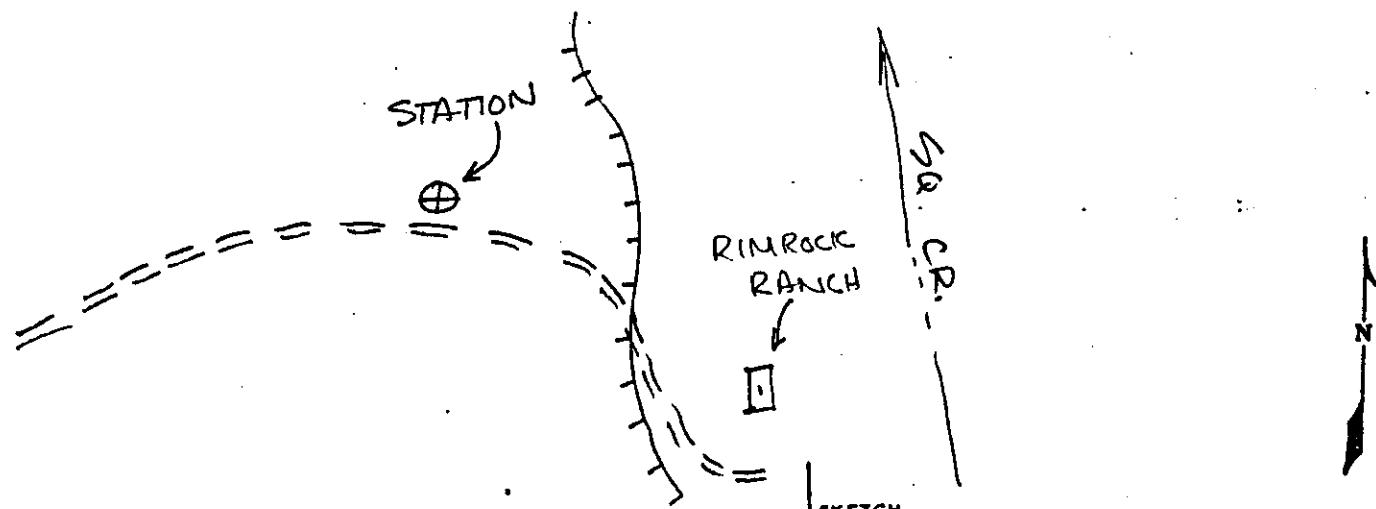
FROM THE JUNCTION OF THE CAMP POLK ROAD
 & THE MAIN ROAD LEADING TO HENKLE BUTTE IN
 SEC 27 T14S R10E PROCEEDED ENE ALONG HENKLE
 BUTTE ROAD 2.46 MILES TO A JUNCTION - PROCEEDED
 LEFT DOWN FREMONT CANYON ROAD 1.0
 MILES TO A JUNCTION AT THE ENTRANCE TO
 A LARGE OPEN AREA IN SEC. 5 T14S R11E -
 PROCEEDED ON LEFT FORK 1.5 MILES TO A
 POINT JUST BEFORE THE TOP OF A RIDGE.
 STATION IS A SUR CAP CEMENTED IN A
 FLAT ROCK 50 FT WEST & ABOVE ROAD



STATE DESCHUTES	TYPE OF MARK BRASS CAP	STATION RIMROCK	H&U 3 T14S R11E	
LOCALITY SISTERS OR.	STAMPING ON MARK RIMROCK	AGENCY (CAST IN MARKS) USACE	ELEVATION 2858.10 (FT) ML	
LATITUDE	LONGITUDE	DATUM	DATUM	1929 / w 1947 ADJ
(NORTHING)(EASTING) 264,961.28 (ft)	(EASTING)(NORTHING) 1,762,001.10 (ft)	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DA CW 57-77-C-006	
(NORTHING)(EASTING) (ft)	(EASTING)(NORTHING) (m)	GRID AND ZONE (m)	DATE NOV 1976	ORDER 3RD.
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (FEET)

DRIVE TO:

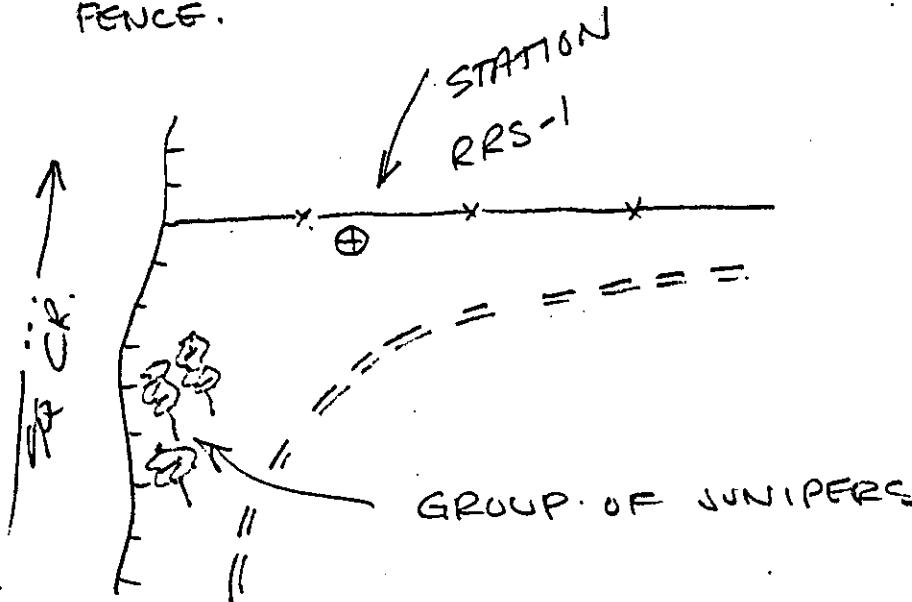
FROM THE JUNCTION OF CAMP POLK ROAD & THE MAIN ROAD LEAVING TO HENKLE BUTTE IN SEC 27, T14S R10E - PROCEED ENE ALONG HENKLE BUTTE ROAD 2.46 MILES TO A JUNCTION - PROCEED LEFT DOWN FREMONT CANYON ROAD 4.0 MILES TO A JUNCTION AT THE ENTRANCE TO A LARGE OPEN AREA IN SEC 5 T14S R11E PROCEED ON RIGHT FORK 1.5 MILES TO A POINT ON ON THE RIMROCK 200' FT BEFORE BREAKING OVER SIDE & DOWN TO RIMROCK RANCH HOUSE ON SQUAW CREEK. STATION IS 30' NORTH OF ROAD IN LARGE OPEN AREA.



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COUNTY Deschutes	TYPE OF MARK SUR CAP	STATION RRS-1 H&V 3 14511E	
LOCALITY SISTERS OR.	STAMPING ON MARK RRS-1	AGENCY (CAST IN MARKS)	ELEVATION 3003.03 VA (FT) H&V
LATITUDE	LONGITUDE	DATUM	DATUM 1929/W 1947 ADJ.
(NORTHING)(EASTING) (FT) 264,826.52	(EASTING)(NORTHING) (FT) 1,764,582.19	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE NOV 1976 ORDER 320
TO OBTAIN		GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH
TO OBTAIN		GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
			GRID DISTANCE (METERS) (FEET)

^{STATION}
 $\frac{3}{4}$ OF A MILE SOUTH OF STONES ON DIRT ROAD PROCEEDED
 ONE WEST ON AN OLD DIRT ROAD WHICH PARALLELS
 A POWER LINE 0.6 MILES TO EDGE OF RIMROCK
 STATION IS A SUR CAP IN FLAT ROCK ISO
 NORTH OF DIRT ROAD 5' SOUTH OF A EAST-WEST
 FENCE.



SKETCH

DA FORM 1959 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

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LOCALITY DEECHUTTES	TYPE OF MARK SUR CAP	STATION RRS-2 H&V 2 14S 11E		
LOCALITY SISTERS OR	STAMPING ON MARK RRS-2	AGENCY (CAST IN MARKS)	ELEVATION 3029.32 VA	(FT) MM
LATITUDE	LONGITUDE	DATUM	DATUM	
(NORTHING)(EASTING) (FT) 264,803.33	(EASTING)(NORTHING) (FT) 1,767,421.37	GRID AND ZONE OCS NORTH	ESTABLISHED BY (AGENCY) DALW57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE NOV 76	ORDER 3RD.
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)
	" "	" "		

³₄ OF A MILE SOUTH OF STATION STONES ON DIRT ROAD PROCEEDED WEST ON AN OLD DIRT ROAD WHICH PARALLELS A POWER LINE 2000 FT. STATION IS 10 FT SOUTH OF ROAD - A SUR CAP IN CONCRETE.



DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

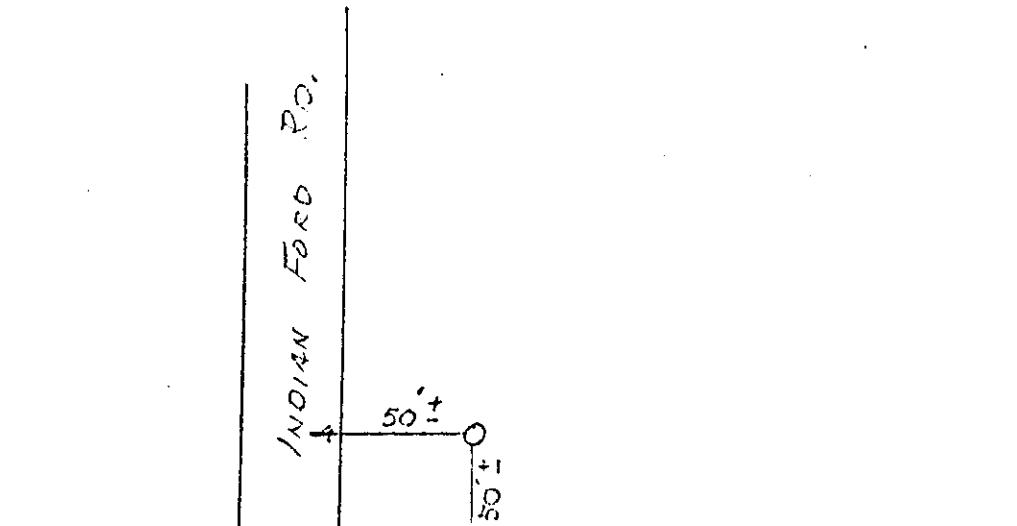
For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

SKETCH

54

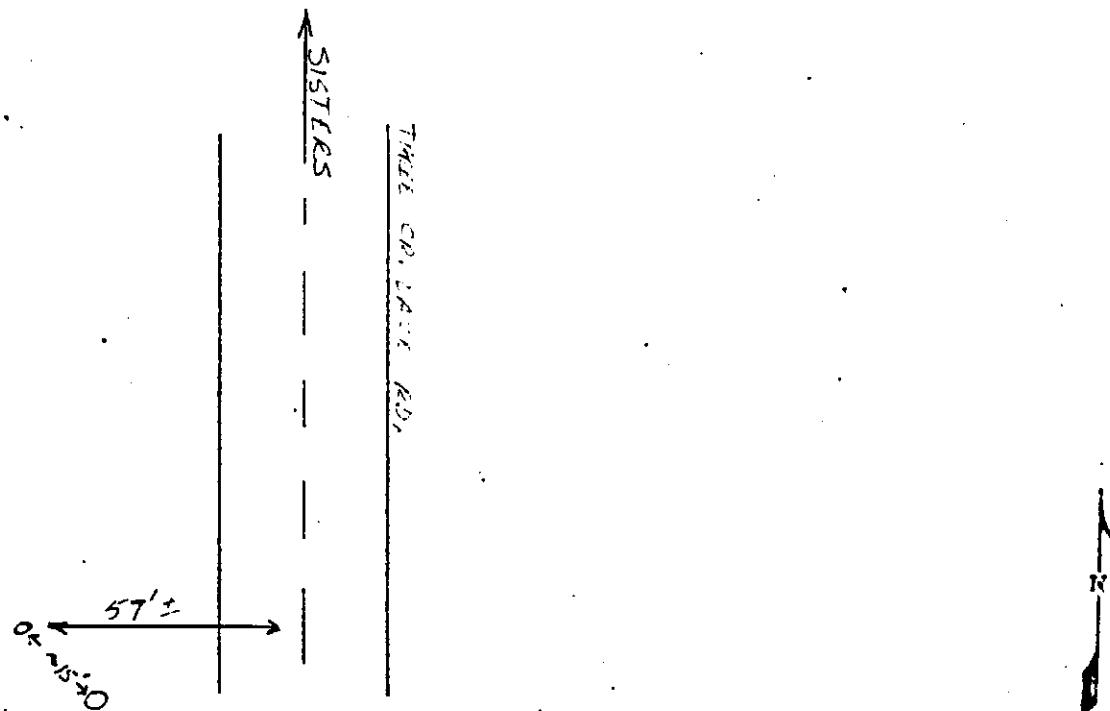
COUNTRY DESCHUTES	TYPE OF MARK BRASS C9D	STATION FORD BM	ELEVATION (FT) 3175.718 (M)
LOCALITY SISTERS, ORE	STAMPING ON MARK FORD Y 27 14S 10 E	AGENCY (CAST IN MARKS) USCE	DATUM 1929 w/1947 ADJUST
LATITUDE	LONGITUDE	DATUM	DATUM
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE —	ESTABLISHED BY (AGENCY) OACW-57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 3 RD
TO OBTAIN GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
	° ' "	° ' "	

DRIVE TO LOCATION: North on CAMO POLK RD. 2.1 MILES TO THE INTERSECTION OF INDIAN FORD RD. STATION IS IN THE N.E. CORNER OF THE INTERSECTION.



LOCATION DESCHUTES	TYPE OF MARK BRASS CAP	STATION THREE CREEK B.M.	
LOCALITY SISTERS, OREGON	STAMPING ON MARK V29-155-10E	AGENCY (CAST IN MARKS) USCE	ELEVATION (FT) (M) 3540.513 (M)
LATITUDE	LONGITUDE	DATUM	DATUM 1929 NAD 1947 ADJUST
(NORTHING)(EASTING) (FT) — (M)	(EASTING)(NORTHING) (FT) — (M)	GRID AND ZONE	ESTABLISHED BY (AGENCY) DACW 57-77-L-0006
(NORTHING)(EASTING) (FT) — (M)	(EASTING)(NORTHING) (FT) — (M)	GRID AND ZONE	DATE ORDER NOV. 1976 3RD
TO OBTAIN GRID AZIMUTH, ADD	TO THE GEODETIC AZIMUTH		
TO OBTAIN GRID AZ. (ADD)(SUB.)	TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)

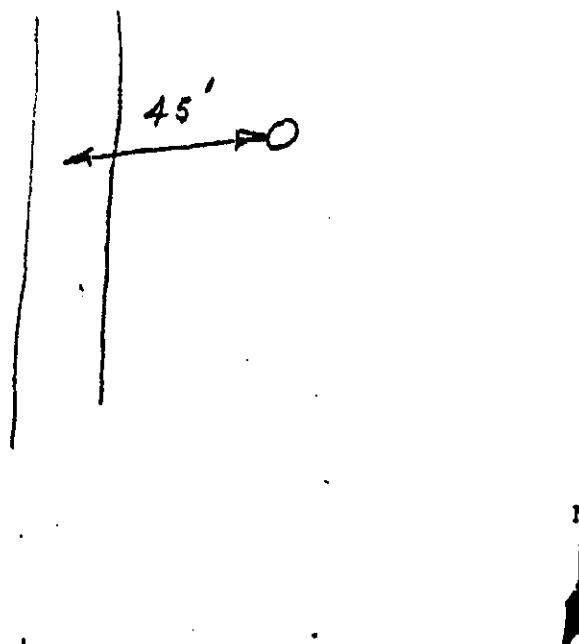
DRIVE TO LOCATION: 4.7 MILES SOUTH ALONG THREE CREEK LAKE ROAD FROM INTERSECTION OF SAID ROAD AND U.S. HWY 20 IN SISTERS, OREGON. (JUST BEFORE THREE CREEK RD. BEGINS GRADE BREAK TO SQUAW BLUFF) THENCE 57' ± RIGHT OF $\frac{1}{2}$. MARKED BY STANDARD SURVEY WITNESS POST SIGN.



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COUNTRY DESCHUTES	TYPE OF MARK BRASS CAP	STATION FREMONT BM		
LOCALITY SISTERS, ORE	STAMPING ON MARK FREMONT VB 14S 11E	AGENCY (CAST IN MARKS) USCE	ELEVATION 2882.40	(FT) (MI)
LATITUDE	LONGITUDE	DATUM	DATUM	<i>1929 w/1947 ADJUST</i>
(NORTHING)(EASTING) (M)	(EASTING)(NORTHING) (M)	(FT) (M)	GRID AND ZONE —	ESTABLISHED BY (AGENCY) DAGW-57-77-C-0006
(NORTHING)(EASTING) (M)	(EASTING)(NORTHING) (M)	(FT) (M)	GRID AND ZONE	DATE Nov. 1976 ORDER 3rd
TO OBTAIN	GRID AZIMUTH, ADD			TO THE GEODETIC AZIMUTH
TO OBTAIN	GRID AZ. (ADD)(SUB.)			TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION: SOUTHEAST ON HWY. #20 TWO BLOCKS FROM SISTERS U. S. POST OFFICE TURN NORTH ON LOCUST ST. (CAMP POLK RD.) 3.1 MILES TURN NORTH ON FREMONT CANYON RD. 5.2 MILES TO STATION, STATION IS 45' RIGHT OF ROAD IN A SMALL CLEARING, MARKED BY A METAL POST AND STANDARD SIGN.



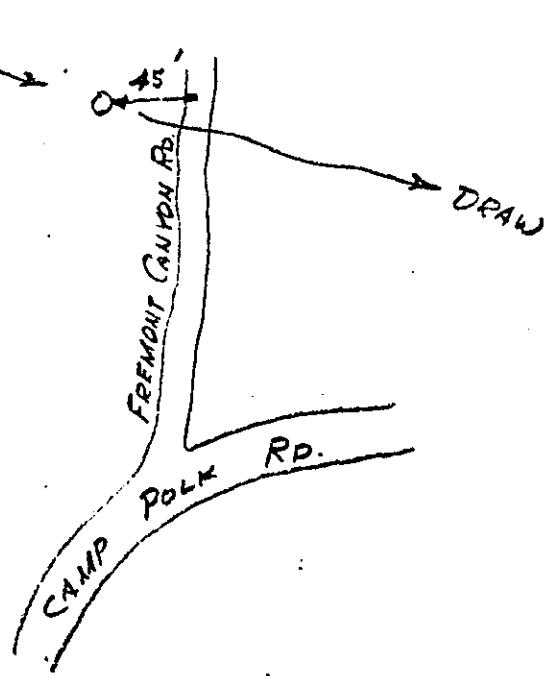
57

STATE/CITY DESCHUTES	TYPE OF MARK BRASS CAP	STATION STEPHEN'S BM	ELEVATION 3150.92 (FT) (M)
LOCALITY SISTERS ORE	STAMPING ON MARK STEPHEN'S V 23 1AS 10E	AGENCY (CAST IN MARKS) USCE	DATUM 1929 w/1947 ADJUST
LATITUDE	LONGITUDE	DATUM	ESTABLISHED BY (AGENCY) DALW 57-77-C-0006
(NORTHING)(EASTING) — (M)	(EASTING)(NORTHING) —	(FT) GRID AND ZONE — (M)	DATE Nov. 1976
(NORTHING)(EASTING) — (M)	(EASTING)(NORTHING) —	(FT) GRID AND ZONE — (M)	ORDER 3RD
TO OBTAIN GRID AZIMUTH, ADD TO OBTAIN GRID AZ. (ADD)(SUB.)			TO THE GEODETIC AZIMUTH TO THE GEODETIC AZIMUTH
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)
	" "	" "	GRID DISTANCE (METERS) (FEET)

DRIVE TO DESCRIPTION 1 SOUTHEAST ON HWY. #20 TWO BLOCKS

FROM SISTERS U.S POST OFFICE TURN SE NORTH ON LOCUST ST. (CAMP POLK RD.) 3.1 MILES TURN SE NORTH ON FREMONT CANYON ROAD 1.5 MILES TO STATION.

STATION IS 45' E LEFT OF R ROAD, IN THE BOTTOM OF A DRAW. MARKED BY A STANDARD SIGN & METAL POST.

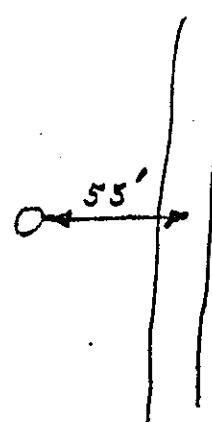


SKETCH

58

COUNTRY DESTITUTES	TYPE OF MARK BRASS CAP	STATION HENKLE BM		
LOCALITY SISTERS, ORE	STAMPING ON MARK HENKLE Y24 145 10E	AGENCY (CAST IN MARKS) USCE	ELEVATION 3046.60 (FT) (M)	DATUM 1929 w/1947 ADJUST.
LATITUDE	LONGITUDE	DATUM	ESTABLISHED BY (AGENCY) DACW - 57-77-C-0006	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE —	DATE Nov. 1976 ORDER 3 RD
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE	
TO OBTAIN GRID AZIMUTH, ADD TO OBTAIN GRID AZ. (ADD)(SUB.)		TO THE GEODETIC AZIMUTH TO THE GEODETIC AZIMUTH		
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)

DRIVE TO DESCRIPTION: SOUTHEAST ON HWY #20 TWO BLOCKS FROM SISTERS U.S. POST OFFICE THEN SE NORTH ON LOCUST ST. (CAMP POLK RD.) 3.1 MILES THEN SE NORTH ON FREMONT CANYON RD. 2.9 MILES TO STATION. STATION IS 55' E LEFT OF R OF ROAD IN A SMALL CLEARING. MARKED BY A METAL POST AND STANDARD SIGN.



SKETCH

DA FORM 1959 1 OCT 64

REPLACES DA FORMS 1959
AND 1960, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 5-237; the proponent
agency is U.S. Continental Army Command.

59

COUNTRY <u>DESCHUTES</u>	TYPE OF MARK <u>BRASS CAP</u>	STATION <u>POLK BM</u>	U 35 14S 10E
LOCALITY <u>SISTERS, ORE</u>	STAMPING ON MARK <u>POLK</u>	AGENCY (CAST IN MARKS) <u>USCE</u>	ELEVATION (FT) <u>3012.612</u> (M)
LATITUDE	LONGITUDE	DATUM	GATUM <u>1929 4/1947 ADJUST</u>
(NORTHING)(EASTING) (FT) — (M)	(EASTING)(NORTHING) (FT) — (M)	GRID AND ZONE —	ESTABLISHED BY (AGENCY) <u>DACW - 57 - 71 - C - 0006</u>
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	GRID AND ZONE	DATE <u>Nov. 1976</u> ORDER <u>3 RD</u>

TO OBTAIN GRID AZIMUTH, ADD TO THE GEODETIC AZIMUTH
 TO OBTAIN GRID AZ. (ADD)(SUB.) TO THE GEODETIC AZIMUTH

OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS) (FEET)	GRID DISTANCE (METERS) (FEET)

DA FORM 1959 OCT 64

REPLACES DA FORMS 1059
AND 1060, 1 FEB 57, WHICH
ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION

For use of this form, see TM 3-237; the proponent

SKETCH

60

LOCALITY DESCHUTES	TYPE OF MARK BRASS CAP	STATION CANAL BM V 21 155 10E		
LOCALITY SISTERS OR.	STAMPING ON MARK CANAL BM	AGENCY (CAST IN MARKS) USACE	ELEVATION 3366.56 (FT) USA	
LATITUDE	LONGITUDE	DATUM	DATUM	
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE —	ESTABLISHED BY (AGENCY) DACW 57-77-C-0006
(NORTHING)(EASTING) (FT) (M)	(EASTING)(NORTHING) (FT) (M)	(FT) (M)	GRID AND ZONE —	DATE NOV 1976 ORDER 3ED
TO OBTAIN GRID AZIMUTH, ADD ° ° ° ° °			TO THE GEODETIC AZIMUTH	
TO OBTAIN GRID AZ. (ADD)(SUB) ° ° ° ° °			TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH OR DIRECTION (GEODETIC)(GRID) (MAGNETIC)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID DISTANCE (METERS)
	° ° °	° ° °		

2.65 MILES SOUTH ON THREE CREEK LAKE
ROAD FROM SISTERS A BRASS CAP IN
THE SW CORNER OF A CONCRETE BRIDGE
OVER A CANAL.